Computing Research Association

Academic Member Book

2024

CRA
Computing Research Association

Welcome to the 2024 CRA Academic Member Book

Over the years, the *CRA Academic Member Book* has grown into a valued resource, offering CRA academic member units (departments, schools, and more) a platform to spotlight their latest breakthroughs, accomplishments, and news. This year, we are thrilled to celebrate record-breaking participation, with contributions from more than 150 academic member units. This milestone reflects the vibrant and ever-expanding world of computing research and education — a publication that so many of us look forward to each year.

Within its pages lies a wealth of engaging and practical insights. Whether you are a member of the computing research community, a prospective student searching for your perfect academic fit, a new PhD exploring faculty opportunities, or simply someone curious about our field, this book provides access to invaluable knowledge. From introductions to new faculty members and key academic and research metrics to prestigious awards and significant grants, it is a rich source of inspiration and information.

I want to express my sincere appreciation to all the academic member units that contributed to this year's edition. Your efforts to push the boundaries of computing research are extraordinary, and CRA is proud to provide this platform for you to share your achievements with the broader community.

I invite you to explore this year's edition and discover the passion, dedication, and innovation that define CRA and its academic members. Each page is a testament to the collective impact we continue to make in advancing computing research and education.

Thank you for your continued support, and here's to another year of progress and discovery!

All the best,

Tracy

Tracy Camp
Executive Director and CEO
Computing Research Association (CRA)

Arizona State University
School of Computing and Augmented Intelligence

Auburn University
Computer Science and Software Engineering Department

Augusta University
School of Computer and Cyber Sciences

Barnard College
Computer Science

Binghamton University
School of Computing

Boise State University
Department of Computer Science

Boston University
Faculty of Computing & Data Sciences
Department of Computer Science
Department of Electrical & Computer Engineering

Bowling Green State University
Department of Computer Science

Brigham Young University
Computer Science Department

Brown University
Department of Computer Science

Bucknell University
Computer Science

Carleton College
Computer Science

Carnegie Mellon University
School of Computer Science

City University of New York - Graduate School
Computer Science

Colgate University
Department of Computer Science

College of Charleston
Department of Computer Science

College of William and Mary
Computer Science

Colorado College
Math & Computer Science

Colorado School of Mines
Computer Science

Colorado State University
Department of Computer Science

Columbia University
Computer Science Department

Cornell University
Cornell Bowers CIS, Department of Computer Science
Cornell Bowers CIS, Department of Information Science

Dalhousie University
Faculty of Computer Science

Duke University
Department of Computer Science
Electrical and Computer Engineering

Emory University
Department of Computer Science

Florida Atlantic University
Department of Electrical Engineering and Computer Science

Florida International University
Knight Foundation School of Computing and Information Sciences

George Mason University
Department of Computer Science

Georgia Institute of Technology
School of Computational Science and Engineering
School of Computer Science
School of Computing Instruction
School of Interactive Computing

Grand Valley State University
College of Computing

Harvey Mudd College
Computer Science

Hofstra University
Department of Computer Science

Illinois Institute of Technology
Computer Science

Iowa State University
Department of Computer Science

Johns Hopkins University
Department of Computer Science

Kean University
Department of Computer Science and Technology

Kennesaw State University
College of Computing & Software Engineering

Lehigh University
Computer Science and Engineering

Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science

Miami University
Department of Computer Science and Software Engineering

Michigan Technological University
Department of Computer Science

Mississippi State University
Computer Science and Engineering

Missouri S&T
Computer Science Department

Montana State University
Gianforte School of Computing

New Jersey Institute of Technology
Ying Wu College of Computing

New York University
Department of Computer Science

Northeastern University
Khoury College of Computer Sciences

Northern Kentucky University
School of Computing and Analytics

Northwestern University
Computer Science

Ohio University
Electrical Engineering and Computer Science

Pennsylvania State University
College of Engineering, Computer Science
College of Information Sciences and Technology

Purdue University
Department of Computer Science

Purdue University Northwest
Department of Computer Science

Rensselaer Polytechnic Institute
Computer Science Department

Rochester Institute of Technology
Department of Computer Science

Rutgers, the State University of New Jersey
Electrical and Computer Engineering

Stony Brook University - SUNY
Department of Computer Science

Temple University
Department of Computer and Information Science

Tennessee Technological University
Department of Computer Science

Texas State University
Department of Computer Science

Texas Tech University
Computer Science Department

The Ohio State University
Department of Computer Science and Engineering

The University of Arizona
Department of Computer Science

The University of Texas at Arlington
Department of Computer Science and Engineering

Toyota Technological Institute at Chicago
Computer Science

Tulane University
School of Science & Engineering: Department of Computer Science

University At Buffalo
The Department of Computer Science and Engineering

University of Alabama
Computer Science

University of Alberta
Department of Computing Science

University of Arkansas
Electrical Engineering and Computer Science

University of British Columbia
Computer Science

University of California Berkeley
Department of Electrical Engineering & Computer Sciences
School of Information

University of California Los Angeles
Computer Science Department

University of California Merced
Department of Computer Science and Engineering

University of California Riverside
Computer Science and Engineering

University of California San Diego
Department of Computer Science and Engineering

University of California Santa Barbara
Computer Science Department

University of California Santa Cruz
Computational Media

University of Central Florida
Department of Computer Science

University of Chicago
Department of Computer Science

University of Cincinnati
School of Information Technology

University of Colorado Boulder
Department of Computer Science
Department of Electrical, Computer, and Energy Engineering

University of Delaware
Computer and Information Sciences

University of Florida
Department of Computer & Information Science & Engineering

University of Hawaii at Hilo
Computer Science

University of Illinois Chicago
Computer Science Department

University of Illinois Urbana-Champaign
Computer Science
Department of Electrical and Computer Engineering
School of Information Sciences

University of Kansas
Electrical Engineering and Computer Science

University of Kentucky
Department of Computer Science

University of Louisiana at Lafayette
School of Computing and Informatics

University of Maryland
College of Information
Department of Computer Science

University of Maryland, Baltimore County
Computer Science and Electrical Engineering
Department of Information Systems

University of Massachusetts Amherst
Manning College of Information and Computer Sciences

University of Massachusetts Lowell
Computer Science

University of Michigan
Computer Science and Engineering
Electrical and Computer Engineering
Robotics Department
School of Information

University of Missouri
Electrical Engineering and Computer Science

University of Missouri - Kansas City
School of Science and Engineering - Division of Computing, Analytics and Mathematics

University of Nebraska - Lincoln
School of Computing

University of Nebraska Omaha College of Information, Science and Technology
Computer Science
Information Systems and Quantitative Analysis
School of Interdisciplinary Informatics

University of New Hampshire
Computer Science

University of New South Wales
School of Computer Science and Engineering

University of North Carolina at Chapel Hill
Computer Science

University of North Carolina at Charlotte
College of Computing and Informatics

University of North Texas
Computer Science & Engineering

University of Notre Dame
Computer Science and Engineering

University of Pennsylvania
Computer and Information Science Department

University of Pittsburgh
Department of Computer Science
Department of Informatics and Networked Systems

University of Rochester
Computer Science

University of South Florida
Computer Science and Engineering

University of Southern California
Information Science Institute
Thomas Lord Department of Computer Science

University of Southern Mississippi
School of Computing Sciences & Computer Engineering

University of Texas at Dallas
Computer Science

University of Toledo
Electrical Engineering and Computer Science

University of Toronto
Department of Computer Science

University of Utah
Kahlert School of Computing
Scientific Computing and Imaging Institute

University of Vermont
Computer Science

University of Virginia
Department of Computer Science

University of Washington
Information School
Paul G. Allen School of Computer Science & Engineering

University of Waterloo
David R. Cheriton School of Computer Science

University of West Florida
Department of Computer Science

University of Wisconsin - Madison
Computer Sciences department

University of Wyoming
School of Computing

Virginia Commonwealth University
Computer Science

Virginia Tech
Department of Computer Science

Washington University in St. Louis
Department of Computer Science & Engineering

Wayne State University
Department of Computer Science

Wellesley College
Computer Science

West Virginia University
Lane Department of Computer Science and Electrical Engineering

Whitman College
Computer Science Department

Williams College
Computer Science Department

Yale University
Computer Science Department

York University
Electrical Engineering and Computer Science

Ira A. Fulton Schools of Engineering
Arizona State University

School of Computing and Augmented Intelligence

New faculty members

We proudly welcome **13 new colleagues** to our team of 121 globally recognized faculty members.

3 teaching faculty
Bharatesh Chakravarthi
In Jung Kim
Zahra Sadri-Moshkenani

10 tenure-track faculty
Deniz Berfin Karakoc
Lacy Greening
Vivek Gupta
Jaron Mink
Ozgur Ozmen
Lindsay Sanneman
Bing Si
Chenkai Weng
Baoyu Zhou
Ben Zhou

By the numbers

While SCAI is one of the nation's largest computer science programs, we remain mindful of our dedication to educational excellence.

12,175
enrollment in fall 2024

1,824
new degrees awarded AY2023–24

U.S. News & World Report rankings

Graduate programs

- **#5 Engineering management,** online master's program
- **#7 Industrial engineering,** online master's program
- **#19 Industrial engineering**
- **#36 Computer engineering**

Undergraduate programs

- **#17 Industrial engineering**
- **#18 Cybersecurity** (computer science specialty)
- **#19 Artificial intelligence** (computer science specialty)
- **#25 Computer engineering**

$27.6+
million in expenditures in FY23

$32+
million in awards in FY23

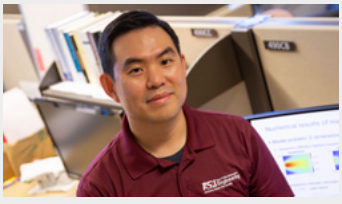
SCAI research

SCAI is the home of **nine research centers** including the Center for Accelerating Operational Efficiency, a Department of Homeland Security Center of Excellence, the ASU-Mayo Center for Innovative Imaging and the Center for Cybersecurity and Trusted Foundations.

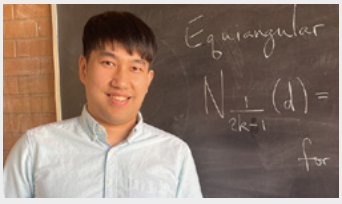
Faculty awards

Assistant Professor **Hasti Seifi** received a 2024 Faculty Early Career Development (CAREER) Program Award from the National Science Foundation for her efforts to democratize haptics.

Assistant Professor **Kookjin Lee** received a 2024 Faculty Early Career Development (CAREER) Program Award from the National Science Foundation for his work in scientific machine learning.



Zilin Jiang received the Fulkerson Prize from the American Mathematical Society and the Mathematical Optimization Society for his award-winning paper on discrete mathematics.



School of Computing and Augmented Intelligence
@SCAI_ASU
@SCAIASU

scai.engineering.asu.edu

Department of Computer Science & Software Engineering (CSSE) @ Auburn University

An Overview

eng.auburn.edu/csse

- Established 1984
- Highest ranked CS department in Alabama
- 15th in the 10-state southeastern region
- 40th among US public universities
- In the top 12% of public & private CS departments

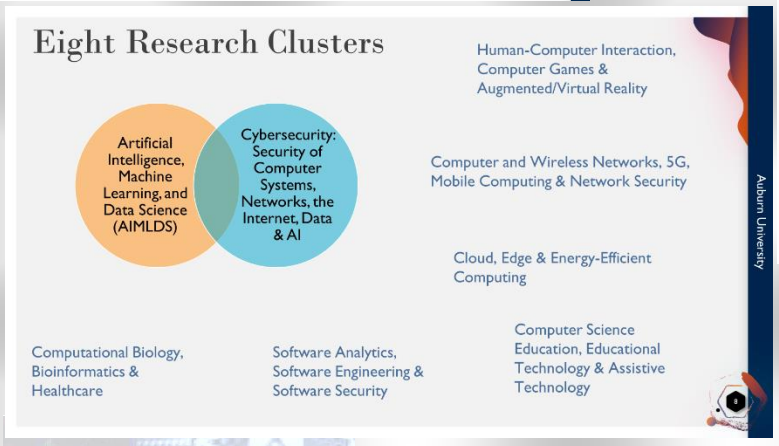
2024 U.S. News World Report rankings

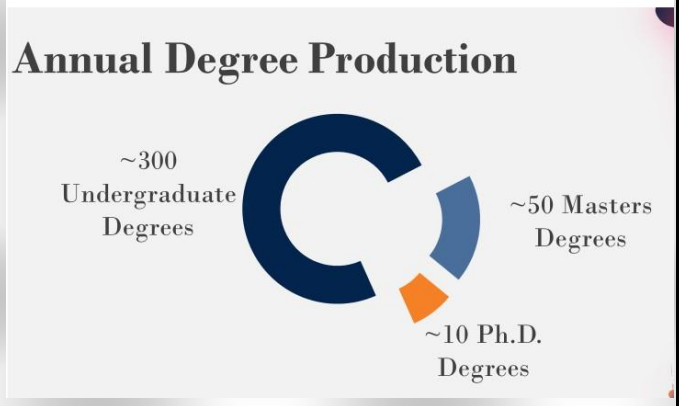
Undergraduate Degrees

- BS in Computer Science
- Bachelor of Software Engineering
- Bachelor of Computer Science Online
- 1200+ undergraduate students

Graduate Degrees

- PhD, Computer Science & Software Engineering
- MS, Computer Science & Software Engineering
- MS, Cybersecurity Engineering
- MS, Data Science & Engineering
- MS, Artificial Intelligence Engineering
- 200+ MS & PhD students

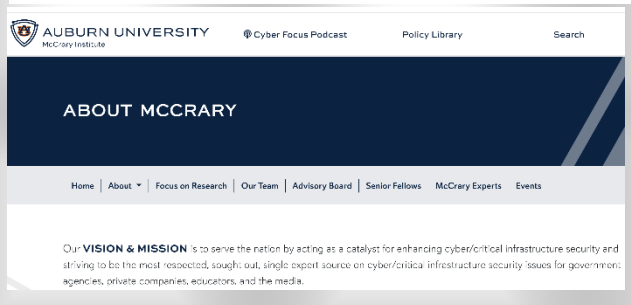




AI@AU
AUBURN UNIVERSITY
ARTIFICIAL INTELLIGENCE INITIATIVE

eng.auburn.edu/ai-au/

McCrary Institute for Cyber and Critical Infrastructure Security
mccrary.auburn.edu



Research Sponsors

- NSF
- NIH
- Dept. of Defense
- Dept. of Energy
- Dept. of Agriculture
- Industry
- Foundations

Illustrious Alumni

- CIO, Dept. of Health & Human Services
- Head, UX Research, Disney
- Vice Presidents, Aflac, Dell Technologies, Meta, Morgan Stanley, Visa International
- Venture Capitalists
- Startup Founders

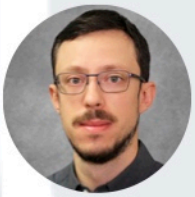
AUGUSTA UNIVERSITY

SCHOOL OF COMPUTER AND CYBER SCIENCES

Augusta University's School of Computer and Cyber Sciences is in the midst of rapid expansion, with substantial growth in our research momentum, educational programs, and community impact. Since 2018, the school has expanded from 10 to 50 faculty members and increased student enrollment from 320 to over 900. We offer seven B.S. degrees, two M.S. degrees, two cybersecurity certificates, and a Ph.D. program, all centered on computer science, information technology, cybersecurity, and cyber systems engineering. Our diverse and inclusive community of scholars empowers our students to become leaders in computing and cybersecurity.

MEET OUR NEW FACULTY

Shiwei Fang



Jeronimo Grandi

Sung Min Hong

Piotr Krysta

Sejun Song

Shiwei Zeng

Our faculty conducts cutting-edge research in areas of:

- **Artificial Intelligence, Machine Learning & Data Science**
- **Cyber-Physical , IoT & Edge Systems**
- **Formal Methods, Software Engineering & Programming Languages**
- **Information Systems**
- **Distributed & Parallel Computing**
- **Security & Privacy**
- **Cybersecurity and more!**

The research of our faculty is funded by awards from NSF, DoD, NSA, ONR, and other agencies.

REACHING MILESTONES!

3 out of 3,000

Three of our ROTC cadets were selected out of 3,000 national applicants to serve in the US Army Cyber Branch.

10 to 50

The faculty team has grown fivefold since the school's founding in 2018.

900+

Since 2018, student enrollment has tripled.

www.augusta.edu/ccs/ ccs@augusta.edu 706-721-1110

Computer Science

BARNARD COLLEGE

Founded in 1889 and affiliated with Columbia University, Barnard College aims to provide the highest-quality liberal arts education to promising and high-achieving young women, offering the unparalleled advantages of an outstanding residential college in partnership with a major research university. The college features a dedicated faculty of distinguished scholars who engage students in intellectual exploration within a supportive community.

Computer Science at Barnard has grown dramatically since its establishment in 2019, becoming one of largest majors at the college. Barnard provides a robust computing education, collaborating with Columbia to offer both a major and minor, and the unique 4+1 BA/MS Pathway for an accelerated master's degree.

Smaranda Muresan
PhD, Columbia University

Brian Plancher
PhD, Harvard University

Mark Santolucito
PhD, Yale University

Lucy Simko
PhD, University of Washington

Lisa Soros
PhD, University of Central Florida

Corey Toler-Franklin
PhD, Princeton University

Tiffany Tseng
PhD, MIT

Rebecca Wright
PhD, Yale University

Highlights

Recent grants, awards, and news

- **Brian Plancher** received a grant from the National Science Foundation to support open-source, GPU-accelerated optimization cyberinfrastructure targeting edge robotics application.
- **Mark Santolucito** received a Fulbright US-Korea Presidential STEM Initiative award to advance research in semiconductor manufacturing.
- **Corey Toler-Franklin** spoke at a Princeton event honoring Black Women Engineers.
- **Rebecca Wright** was the featured science expert for science/comedy show Wrong Answers Only, run by LabX, a program of the National Academy of Sciences.
- We welcome new faculty members **Smaranda Muresan, Lucy Simko, Corey Toler-Franklin,** and **Tiffany Tseng!**
- **CS graduate Raven Rothkopf '24** received a Graduate Research Fellowship from the National Science Foundation. She is now a PhD student at the UC San Diego.
- **Computer Science Help Room** provides peer-led undergraduate tutoring for over 40 hours per week.
- We co-host the annual **DivHacks diversity hackathon**, organized by Columbia's Womxn in Computer Science club.

Visit us at cs.barnard.edu

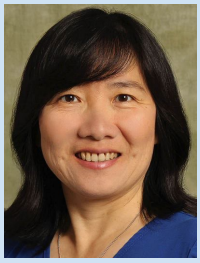
BINGHAMTON UNIVERSITY
STATE UNIVERSITY OF NEW YORK

School of Computing

Thomas J. Watson College of Engineering and Applied Science

https://www.cs.binghamton.edu

New Tenure-Track Faculty Hires



Nancy Lan Guo

SUNY EIP Professor
PhD, West Virginia University
Research: AI, Machine Learning, Bioinformatics Computational Genomics

Nitish Panigrahy

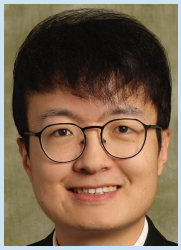
Assistant Professor
PhD, UMass at Amherst
Research: Quantum Information Systems, Performance Modeling, Network Science.

Monika Roznere

Assistant Professor
PhD, Dartmouth College
Research: Marine Robotics, Perception & Robotic Vision, Exploration and Mapping, Interdisciplinary Platforms

Zhaohan Xi

Assistant Professor
PhD, Penn State University
Research: Large Language Models, AI Security, Clinical AI, NLP, Graph Learning



Yiming Zeng

Assistant Professor
PhD, Stony Brook University
Research Areas: Quantum Networking, Quantum Computing, Edge Computing

Our Student And Faculty By Numbers

1476	791	685	491	110	84
Students	Undergraduate Students	Graduate Students	MSCS Students	MSIS Students	PhD Students

51	1	1	3	1	8	8	10	16	14
Full-time Faculty	IEEE Fellow	NAI Fellow	SUNY Distinguished Professors	SUNY EIP Professor	NSF CAREER Awardees	Full Professors	Associate Professors	Assistant Professors	Lecturers

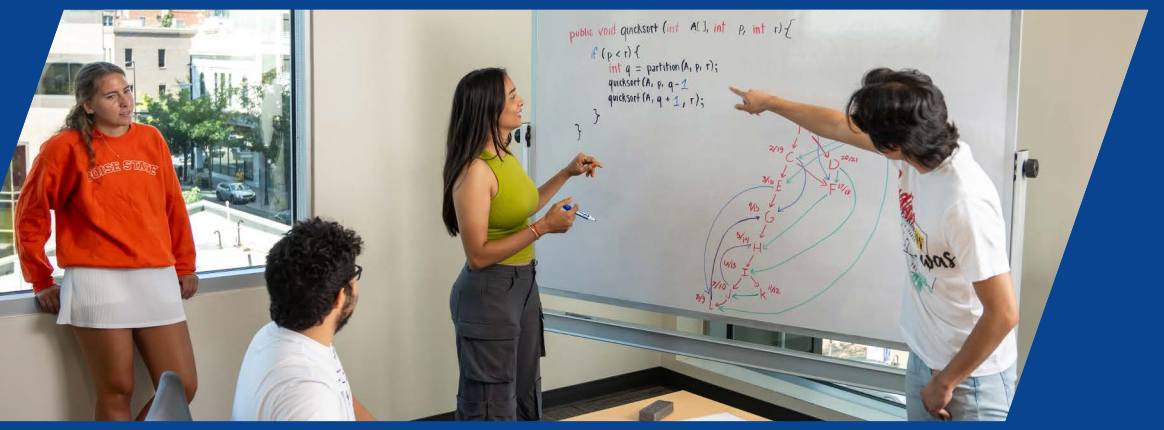
Selected New Research Awards

- **Jeremy Blackburn**. "SaTC: CORE: Small: Research on Concurrent Inauthentic Account and Narrative Detection", NSF, $174,915, 2024-2026.
- **Zeyu Ding,** "Differentially Private SQL with flexible privacy modeling, machine-checked system design, and accuracy optimization", NSF, $335,584, 2024-2028.
- **Nancy Lan Guo.** "PFI-RP: Precision diagnostics for personalized cancer care: development of new drugs and selection of treatment", NSF, $549,994, 2024-2026
- **Ping Yang & Dmitry Ponomarev**. "From Complexity to Clarity - Making Hardware Security Understandable for All", NSF, $273,670, 2024-27.
- **Shiqi Zhang**. "EAGER: RI: Enabling Natural Language and Decision Making Capabilities of Robotic Guide Dogs for People with Visual Impairment", NSF, $125,000, 2024-2025.

More Highlights

- Binghamton University's Department of Computer Science has a new name: School of Computing!
- Six new lecturers were added to the School in Fall 2024 in addition to the five tenure-tack faculty.
- **Lijun Yin** was promoted to SUNY Distinguished Professor.
- **Ping Yang** received 2023-24 Watson College Recognition Award for Distinguished Educator.
- **Ping Yang** has been appointed as Associate Chair for Research and Graduate Programs.
- **Bo Long** received 2023-24 Watson College Recognition Award for Distinguished Alumni.
- **Kartik Gopalan** won the Chancellor's Award for Excellence in Faculty Service.
- **Kartik Gopalan**, former Associate Chair for Research and Graduate Programs, has been appointed as Interim Associate Dean for Research, Corporate Engagement, and Entrepreneurship of Watson College.

BOISE STATE UNIVERSITY COMPUTER SCIENCE



Students

- Bachelor of Science in Computer Science
- Master of Science in Computer Science
- PhD in Computing
- 850+ students

Highlights

- Top-ranked and largest CS program in Idaho
- 6 NSF Career Awards since 2018
- National Center of Academic Excellence in Cyber Defense
- BroncoShield CyberCorps Scholarship for Service program
- Spezzano & Serra chairing 33rd ACM Conference on Information and Knowledge Management in Boise

New Chair

Jerry Alan Fails
Professor

New Faculty

Huadi Zhu
Assistant Professor

Jianshu Liu
Assistant Professor

Sarah Frost
Clinical Assistant Professor

Andre Keys
Clinical Instructor

Faculty Overview

- 19 Tenure Track
- 8 Clinical/Teaching Faculty
- Hiring: AI & Cybersecurity

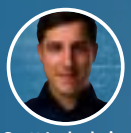
AT A GLANCE

Boston University Faculty of Computing & Data Sciences

Our Faculty

New Faculty

Jeffrey Considine
Associate Professor of the Practice

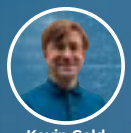


Scott Ladenheim
Associate Professor of the Practice

Onboarded since 2020

Tanima Chatterjee
Clinical Assistant Professor, Director of Undergraduate Studies

Brian Cleary
Assistant Professor



Kevin Gold
Associate Professor of the Practice

Kira Goldner
Assistant Professor

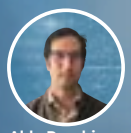
Thomas Gardos
Associate Professor of the Practice, Director of MSDS Program

Leonidas Kontothanassis
MassMutual Professor of the Practice

Allison McDonald
Assistant Professor

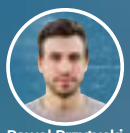
Ngozi Okidegbe
Assistant Professor

Krzysztof Onak
Assistant Professor

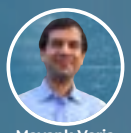


Aldo Pacchiano
Assistant Professor

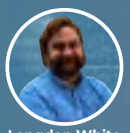
Joshua Peterson
Assistant Professor



Pawel Przytycki
Assistant Professor



Mayank Varia
Associate Professor



Langdon White
Clinical Assistant Professor

Lisa Wobbes
Clinical Assistant Professor

Xuezhou Zhang
Assistant Professor

Vision & Mission

https://bit.ly/CDSVision

11 BU colleges
represented in CDS faculty

370% growth
in students taking CDS courses

353 students
in 2024-25 undergraduate class

Our Mandate

Founded in 2019 and housed in an iconic 19-story building, the Faculty of Computing & Data Sciences is a transdisciplinary, degree-granting academic unit created to connect BU's 17 schools and colleges through the language of computation and data. Complementing BU's CS and ECE departments, the mission of CDS is to lay the foundation for innovation-driven, civic-minded computing, data science, and AI.

Our Academic Programs

- Undergraduate Major (BS) in Data Science
- Undergraduate Minor in Data Science
- PhD in Computing & Data Sciences
- PhD in Bioinformatics
- MS in Data Science
- MS in Bioinformatics

By the Numbers

Faculty & Research

- **5** rounds of faculty searches, yielding **18** core hires: 9 tenure-track (**3** women); **1** tenured; 8 teaching
- **51** faculty members with appointments in or affiliation with CDS from **24** departments
- **2** endowed professorships in AI and in Environmental DS and **3** endowed PhD fellowships
- **$4M** gift from MassMutual (**$2M** in endowment) in support of co-Lab on Responsible Use of Data and AI Governance
- **$3M** of grants and contracts from NSF, industry, and foundations in support of AI for Science and Civic Tech
- **$65M** endowment to support named joint professorships and pre/postdoctoral fellows

Students & Curriculum

- **22** PhD students (**9** domestic; **10** women); **24** inaugural MS students in F'23; **66** in F'24
- **500+** majors in DS (46% women); **300+** minors in DS from **35** different programs
- **106** DS matriculants in F'24 (**48%** women; **21%** first gen; **12%** URG) + **209** internal transfers (**41%** women)
- **64** undergraduate courses in inventory; **52** offered in AY'24 (26 in F'23 + 26 in S'23)
- **9** experiential learning practicum courses per semester; **150** real-world projects
- **1,300+** students enrolled in CDS courses in S'24 (up from 1,010 in S'23)

Experiential Learning with BU Spark!

BU Spark! is an ***innovation*** and ***experiential learning*** lab for computing, data science, and engineering projects housed at the Boston University Faculty of Computing & Data Sciences. Spark! supports ***student innovation*** and ***engagement*** in ***applied research*** and ***real-world projects*** while fostering an inclusive and interdisciplinary community.

4,469	829	359	69	31	4
Students since 2017	*Semester projects*	*Innovation fellows since 2017*	*Mentors*	*Student clubs*	*Hackthons*

Connect: **BU Faculty of Computing & Data Sciences**
cds-admin@bu.edu | bu.edu/cds-faculty | Subscribe: bit.ly/CDSTheDownload

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BOSTON UNIVERSITY

Boston University College of Arts & Sciences
Department of Computer Science

bu.edu/cs **@BUCompSci**

Research Achievements

- **Eran Tromer** and his co-authors received the Test of Time Award at the IEEE Symposium on Security and Privacy (S&P) 2024 for their paper "Zerocash: Decentralized Anonymous Payments from Bitcoin."
- **Renato Mancuso** and **Manos Athanassoulis** were awarded the NSF Division of Computing and Communication Foundations award for their project "Effortless Data Locality Through Near-memory On-the-fly Data Transformation."
- **Adam Smith** was awarded an NSF Collaborative Research award for his project, "Private Model Personalization."
- **Alley Stoughton** was awarded funding from the Riverside Research Institute for her project, "Universal Composability for Preventing Adversarial Composition."
- **Marco Gabardi** was awarded the NSF Collaborative Research award for his project "Mechanized Cryptographic Reasoning in Separation Logic."
- **Richard West** was awarded funding from Charles River Analytics for his project,"Compartmentalization architecture using commodity hardware for enforcement."
- **Manos Athanassoulis** was lead organizer the 14th Annual North East Database Day, a day-long conference for database researchers in the northeast of the U.S. **Vasia Kalavri** and **John Liagouris** also served as Program Chairs.

CS in Stats

41
faculty members

15
staff members

1600+
students

176
undergraduate minors

1357
undergraduate majors
201 of our BA candidates are joint majors.

39
BA/MS students

234
MS candidates

127
PhD candidates

New Faculty Members

Deepti Ghadiyaram
Assistant Professor
researches computer vision and machine learning, with a special focus improving the safety, interpretability, and robustness of computer vision system

Nathan Klein
Assistant Professor
researches the design of fast, approximately optimal algorithms for computationally hard tasks like the traveling salesperson problem

Boqing Gong
Assistant Professor
researches generalization, efficiency, and the visual analytics of objects, scenes, human activities, and their relationships in computer vision and machine learning

Aaron Mueller
Assistant Professor
researches natural language processing with interests in robust generalization, targeted model editing, interpreting the decision-making mechanisms of deep neural models

Educational Innovations

- **Adam Smith** and **Sofya Raskhodnikova** organized an educational outreach event that included a visit from students at a local middle school, featuring hands-on workshops and demonstrations of research-level concepts from various fields of computer science.
- **Tiago Januario** mentored and coached three students from the BU Competitive Programming Club to the 2024 ICPC North America Championship.

Student Spotlights

- **Louwen Qian** (GRS'24) works to advance the foundations of Quantum Cryptography and selected for the 2024 Departmental Research Excellence award. He is a postdoc at NTT CIS and has secured a faculty position upon completion of his postdoc.
- **Saurav Chennuri** (GRS'23) published his ICCVW paper, "Fusion Approaches to Predict Post-stroke Aphasia Severity from Multimodal Neuroimaging Data."
- **Milan Tahiliani** (CAS'24) won the BU Innovate@BU New Venture

Boston University College of Engineering
Department of Electrical & Computer Engineering

2024-2025 FACULTY OPENINGS

bu.edu/eng/ecefacultysearch

NSF CAREER AWARDS

Professor Rabia Yazicigil

To create hybrid bio-electric sensors and establish the emerging field of Cyber-Secure Biological Systems (CSBS).

Professor Wenchao Li

To develop a novel approach to AI training, combining imitation learning with a guiding framework for increased reliability.

NEW FACULTY

Professor Tianyu Wang

Combining optics, physics, and AI, with an emphasis on developing more efficient computing and sensing tech.

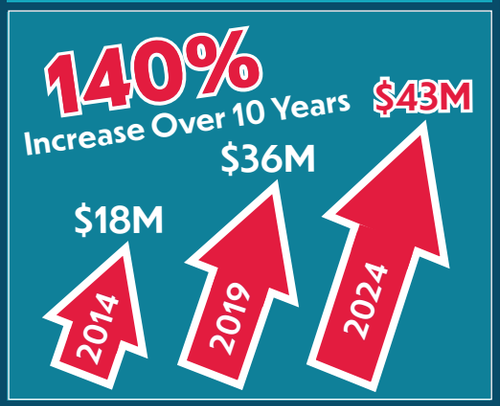
Professor Emiliano Dall'Anese

Optimization, control & learning in complex cyber-physical systems, aimed at scaling up renewable energy.

Professor Ed Solovey

Distributed systems, databases, and scalability. A software engineer with a background in industry.

RESEARCH FUNDING



AI ALLIANCE: FOUNDING MEMBER

The Mass Open Cloud Alliance, directed by Prof. Orran Krieger through BU's Hariri Institute, is a founding member of the AI Alliance, launched by IBM and Meta.

HONORS & ACHIEVEMENTS

- **Professor Milos Popovic** — NAI Fellow
- **Professor Vivek Goyal** — Guggenheim Fellow
- **Professor Gianluca Stringhini** — 2024-25 ACSAC Program Chair
- **Professor Prakash Ishwar** — IEEE MLSP 2024 Best Paper Award
- **Qijun Liu (PhD'24)** — 2024 IEEE ISSCC Rising Star
- **Rashmi Agrawal (PhD'22)** — 2023 EECS Rising Star
- **Chen Ling (PhD'24)** — 2023 EECS Rising Star
- **Alex Bulekov (PhD Student)** — USENIX 2024 Distinguished Paper Award

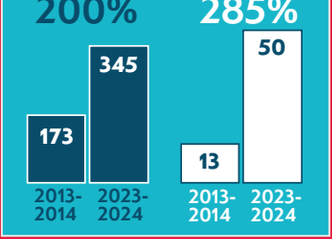
ECE at a Glance

Enrollment

477	undergraduate
160	masters
155	doctoral

Computer Engineering Program Growth

Enrollment Increase Over 10 Years:



Faculty in Numbers

31	Full Professors
13	Associate Professors
7	Assistant Professors

14% Female	8% URM

Faculty Honors

42 Average h-index	9.5K Avg # of Citations
32 Early Career Awards	48 Society Fellows

3 National Academy Members	4 current/former IEEE society presidents	7 current/former Editors-In-Chief

DEPARTMENT OF COMPUTER SCIENCE

BGSU Arts and Sciences
BOWLING GREEN STATE UNIVERSITY

Degree Offered

- Bachelor of Science in Computer Science*
- Bachelor of Arts in Computer Science
- Bachelor of Science in Software Engineering**
- Master of Science in Computer Science

* Accredited by Computing Accreditation Commission of ABET
** Accredited by Engineering Accreditation Commission of ABET

Specializations Offered

- Cybersecurity Specialization
- Computational Data Science Specialization

Interdisciplinary Program Offered

- Master of Science in Data Science
- Doctor of Philosophy in Data Science

Faculty News

- ***Dr. Ruinian Li*** (Co-PIs: Drs. JK Jake Lee, Sankar Roy) has received a 2-year NIST grant ($~200K) and a 2-year Ohio Cyber Range grant ($~150K) to tackle the cybersecurity workforce shortage. These initiatives provide education pathways, workshops, and summer camps, aligned with the NICE framework, while promoting hands-on learning, diversity, and public awareness to protect communities and support economic growth.
- ***Dr. Sankar Roy*** is on a faculty improvement leave and working with a cybersecurity industry partner to gain hands-on cybersecurity experience and develop open-source tools, focusing on adapting existing tools for mobile forensics.
- ***Dr. Michael Decker*** is on a faculty improvement leave and is collaborating with an international researcher at the Tokyo Institute of Technology. The collaboration focuses on advancing research in software evolution and source-code analysis (e.g., developing a taxonomy and automatic detector for Code Evolution Operators (CEOPs), essential patterns in software development).

Some of Recent Publications

- "Teaching Students to Use Programming Error Messages," ACM Conf. on Global Computing Education, 2023. (Dr. Dasigi)
- "Cost Aware LSTM Model for Predicting Hard Disk Drive Failure," Engineering Applications of Artificial Intelligence, 2024. (Dr. Green)
- "Maximizing Matching, Equity and Survival in Kidney Transplantation Using Molecular HLA Immunogenicity Quantitation," Computers in Biology and Medicine, 2024. (Dr. Green)
- "Automated Code Reviewer Recommendation for Pull Requests," E-Informatica Software Engineering Journal, 2024. (Dr. Heydarnoori)
- "Can GitHub Issues Help in App Review Classifications?," ACM Transactions on Software Engineering and Methodology, 2024. (Dr. Heydarnoori)
- "DATAR: A Dataset for Tracking App Releases," 21st IEEE/ACM Int'l Conf. on MSR, 2024. (Dr. Heydarnoori)
- "AROMA: Automatic Reproduction of Maven Artifacts," ACM on Software Engineering, 2024 (Dr. Keshani)
- "Attention-Aware DAE for Automated Solar Coronal Loop Segmentation". The 32nd Int'l Conf. in Central Europe on Computer Graphics, 2024 (Dr. Lee)
- "Smart Contract Assisted Privacy-Preserving Data Aggregation and Management Scheme for Smart Grid," IEEE Trans. On Dependable and Secure Computing, 2023 (Dr. Li)
- "Explainable AI for Comparative Analysis of Intrusion Detection Models," IEEE Int'l Mediterranean Conf. on Communications and Networking, 2024 (Dr. Niu)
- "An Edge Computing Architecture for Autonomous Vehicles," 25th International Conference on Internet of Things, 2024 (Dr. Rajaei)
- "Deleted File Recovery for the Linux File System (Ext4): Finding the State-of-the-Art," 12th Int'l Symp. on Digital Forensics and Security, 2024 (Dr. Roy)
- "Customized Security Triage from Analysis Tools: Current State of the Art," 9th IEEE Int'l Conf. on Computer and Communications, 2023 (Dr. Wu)

For more information

Department of Computer Science
419-372-2337 | Email: bgcs@bgsu.edu | Website: bgsu.edu/cs

BGSU | DEPARTMENT OF Computer Science
BOWLING GREEN STATE UNIVERSITY

A Public University *for the* Public Good.

2023 - 2024

BYU Computer Science

EMITTING LIGHT FOR THE BENEFIT OF THE WORLD

2023 World Series

Will Melville, a PhD student at BYU and who works as an analyst with the Texas Rangers, started a project to strengthen the Rangers defense. The Rangers won the World Series in November 2023 using a version of Melville's model to position their outfielders. Melville was presented a World Series ring in 2024 for his contribution.

ICPC World Finals

In April, BYU's Competitive Programming Team consisting of Teikn Smith, Thomas Draper, and Lawry Sorenson, qualified for the ICPC World Finals held in Luxor, Egypt. The team ended up placing 12th out of 149 teams in an unprecedented turn of events. They received a bronze medal for their performance as they went down in BYU history.

Education Transformation Award

Xinru Page is an Associate Professor of Computer Science at BYU. Out of 150 nominees she received the Education Transformation Award from the Women Tech Council. Dr. Page is an accomplished researcher, writer, and teacher. She has published 54 peer-reviewed articles, 3 book chapters, received 5 best papers and honorable mentions, and 4 outstanding reviewer awards.

43rd Student Emmys®

The Television Academy awarded BYU Animation with a Student Emmy at the 43rd College Television Awards for their animated short, *The Witch's Cat*. This award marked the 20th time BYU has been featured at the Student Emmys.

51st Student Academy Awards®

BYU Animation won a Student Academy Award for their short film, *Student Accomplice*. The students will be traveling to London for the ceremony in October. All winning films will be eligible for the 97th Oscars which will be held in March of 2025.

1,519 Total enrollment	**1,428** Undergraduate enrollment	**91** Graduate enrollment
330 Undergraduate minorities	**152** First generation enrollment	**108** International enrollment

CONNECT WITH US

(801) 422-3027
csoffice@cs.byu.edu

www.cs.byu.edu
@byu.cs

3361 Talmage Math & Computer Science Building

BrownCS NEWS

Our Year In AI: In just a few of our artificial intelligence stories from the past year, members of the Brown CS community have helped develop homegrown African AI, received the highest honor in AI education, addressed Congress, created a dataset that went viral worldwide, and used AI to make NASA imagery accessible to the visually impaired.

Faculty And Students

1138
undergraduate students majoring in Computer Science*

235
Master of Science in Computer Science students

51
faculty members

126
doctoral students

46
Master of Science in Cybersecurity students

**This number includes only third-year and fourth-year students.*

Faculty Academy Members And Fellows

- **2** NAE members
- **1** AAAS member
- **3** AAAS fellows
- **2** AAAI fellows
- **10** ACM fellows
- **6** IEEE fellows
- **1** ISCB fellow
- **1** Jefferson Science fellow
- **1** Computing History Museum fellow

New Faculty Hires

2022

Yu Cheng
Nick DeMarinis
Peihan Miao
Nikos Vasilakis
Suresh Venkatasubramanian

2023

Ellis Hershkowitz

2024

Randall Balestriero
Diana Freed
Akshay Narayan
Deepti Raghavan
Harini Suresh

cs.brown.edu

Recent Awards

SoLaR Best Paper Award
Stephen Bach and collaborators

ACM CCS Top Reviewer Award
Vasileios Kemerlis

AAAI/EAAI Patrick Henry Winston Outstanding Educator Award
Michael Littman

ACM ASIACCS Distinguished Paper Award
Vasileios Kemerlis, Nikos Vasilakis, and collaborators

RECOMB Test of Time Award
Eli Upfal and collaborators

IEEE Undergraduate Teaching Award
R. Iris Bahar

EuroSys Test of Time Award
Malte Schwarzkopf and collaborators

SIGPLAN Distinguished Educator Award
Kathi Fisler and Shriram Krishnamurthi

STOC Test of Time Award
Philip Klein and collaborators

Levchin Prize for Real-World Cryptography
Anna Lysyanskaya

NSF CAREER Award
Vasileios Kemerlis

CNRS Fellow-Ambassadeur
Maurice Herlihy

IEEE CG&A Test of Time Paper Award
David Laidlaw, Andy van Dam, and collaborators

COMPUTER SCIENCE AT BUCKNELL

FACULTY HIGHLIGHTS

REALITY HACK SUCCESS

SING CHUN LEE
Assistant Professor of Computer Science

MIT Reality Hack: Part of a team that captured first place in the Vitality Track and Startup Track. The team's project gives disabled users the ability to control a virtual limb.

Ph.D., Johns Hopkins University

NEW APPOINTMENT

CHRIS MITSCH
Visiting Assistant Professor of Computer Science

Research Interests: History and philosophy of the exact sciences, logic and mathematics in science

Ph.D., Univertsity of California, Irvine

NSF GRANT AWARDEE

ANNIE ROSS
Assistant Professor of Computer Science

NSF Grant: Nearly $78,000 for Creative Accessibility Design Tools for Mobile App Creators: Enhancing Inclusion through Innovative Design Methods.

Ph.D., University of Washington

NEW APPOINTMENT

TODD SCHMID
Assistant Professor of Computer Science

Research Interests: Mathematical logic, specifically universal algebra and coalgebra, and the applications of these disciplines to theoretical computer science and other areas of mathematics

Ph.D., University College London

STUDENT HIGHLIGHTS

KONA GLENN '25 COMPUTER SCIENCE & ENGINEERING AND APPLIED MATHEMATICS

- Analyzed a massive dataset from the Pennsylvania Department of Corrections to look for racial biases in how inmates were treated
- Using Python, wrote code to correct inconsistencies and missing information in the more than 44,000 records
- Also a Division I varsity athlete on the Bucknell women's rowing team

RYAN KOES '26 COMPUTER SCIENCE & ENGINEERING

- Conducted research titled *A Machine Learning-Enhanced Electronic Tongue for the Unbiased Characterization of Coffee*
- Awarded the Reed-Garman Award for Engineering Entrepreneurship to fund his research
- Expanded his knowledge of machine learning through his research project

"We have a lot of research opportunities that expose undergraduate students to industry-level problems and challenges."

20
Our average number of students per class

Students regularly gather in our welcoming student lounge

17
Faculty

Twice a semester we hold ice cream or pancake socials, with faculty serving the students

200
Declared CS Majors

CONTACT US:

Computer Science Department
csci@bucknell.edu
570-577-1394

@BucknellCS
@BucknellCS

Bucknell UNIVERSITY | College of Engineering

Carleton College

Northfield, Minnesota
cs@carleton.edu
http://cs.carleton.edu/

Carleton College is a private, coeducational, highly selective liberal arts college with approximately 2,000 students. Carleton is located in Northfield, MN, a two-college town about 45 miles south of the Twin Cities of Minneapolis and St. Paul. Nationally recognized as a top college for undergraduate teaching, Carleton is known for its academic rigor, intellectual curiosity, and sense of humor.

Department Overview

The department has twelve tenure-track full-time faculty, one lecturer, several visiting faculty members, and an experienced rock-star full-time system administrator. We welcomed Jean Salac and Chelsey Edge to the department this fall, and we are recruiting an additional tenure-track faculty member. Computer Science is the largest major at Carleton; the department typically graduates over 70 majors annually. We are delighted that over 60% of all Carleton students (of all majors) take at least one course in the CS department, and many of our courses are taken by students from a wide variety of majors and have interdisciplinary themes and applications.

Many graduates go on to industry jobs, from large companies (e.g., Google, Amazon, and Target) to small startups. Significant numbers of our majors also go on to graduate programs—including current and recent Ph.D. students at Cornell, Harvard, Johns Hopkins, Michigan, Minnesota, Northwestern, Washington, and Wisconsin, among others.

Student Experiences

The department gets together weekly for academic and social activities, welcoming students from a variety of majors. One of our faculty leads an off-campus study program centered on the history of computing, based in Cambridge (England), and students commonly study abroad through this and other programs. Each year, the department supports a cohort of students in attending the Grace Hopper Celebration and Tapia Conference.

Many students work for the department, helping peers and building connections. There are several active student groups on campus. Lovelace works to increase gender diversity in CS. In the Hack4Impact chapter, student software developers partner with nonprofits, such as the Hmong American Farmers Association, to make a positive impact.

Research Highlights

Faculty have active research programs across a wide range of areas in computer science, often with student research assistants and interdisciplinary collaborators. Faculty have received external funding from the NSF, as well as from internal grants.

Recent student research awards include the Goldwater Scholarship, CRA Outstanding Undergraduate Research Award, and NSF Graduate Research Fellowships.

Carleton CS Faculty, 2024–2025

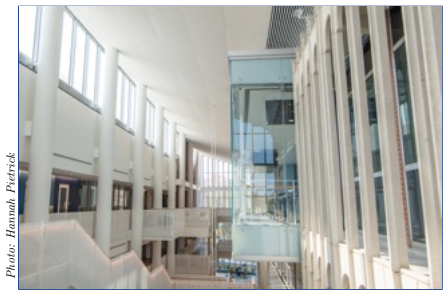


Photo: Hannah Pietrick

In 2020, our department moved into significantly renovated space in Carleton's Olin Hall. This 48-seat, 24-computer teaching lab is cantilevered over the main atrium of Carleton's new integrated science complex.

Carnegie Mellon University
School of Computer Science

SCSatCMU

It's Happening Here...

Carnegie Mellon University has led the world of computer science since the field's inception. We were instrumental in defining the scope and potential of CS, and among the first universities to offer a computer science degree. We embrace a broad view of the field, with seven degree-granting departments that focus not only on theory, but also on specific areas like robotics, language technologies and more.

TOP RANKINGS

#1 *undergraduate specialties*

U.S. News and World Report

- Artificial Intelligence
- Cybersecurity
- Mobile/Web Applications
- Software Engineering

STUDENT ENROLLMENT

2,900+

1,019 undergraduate

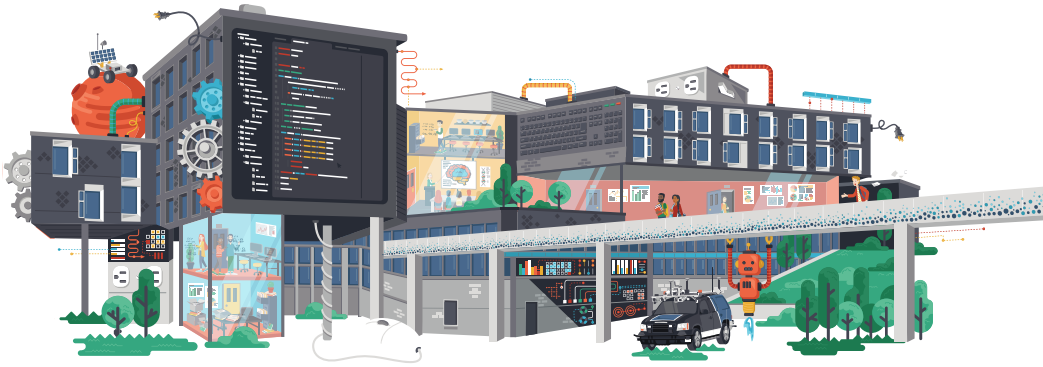
1,165 master's

740 doctorate

51% International | 49% U.S.

Our Departments

- **Computer Science**
- **Human-Computer Interaction**
- **Software and Societal Systems**
- **Computational Biology**
- **Machine Learning**
- **Robotics**
- **Language Technologies**



Bachelor's Degrees

Artificial Intelligence
Computational Biology
Computer Science
Human-Computer Interaction
Robotics

Ph.D. Programs

Algorithms, Combinatorics and Optimization
Computational Biology
Computer Science
Computer Science/Neural Basis of Cognition
Human-Computer Interaction
Language and Information Technologies
Machine Learning
Machine Learning and Public Policy
Neural Computation and Machine Learning
Pure and Applied Logic
Robotics
Societal Computing
Software Engineering
Statistics and Machine Learning

Master's Degrees

Artificial Intelligence and Innovation
Automated Science: Biological Experimentation
Computational Biology
Computational Data Science
Computer Science
Computer Vision
Educational Technology and Applied Learning Science
Human-Computer Interaction
Information Technology – Privacy Engineering
Intelligent Information Systems
Language Technologies
Machine Learning
Product Management
Robotics
Robotic Systems Development
Software Engineering
Software Engineering – Scalable Systems
Software Engineering – Embedded Systems

Some Notable Things That **Happened Here**

Nearly half of our incoming class is female.

We created the first artificially intelligent computer program more than 60 years ago.

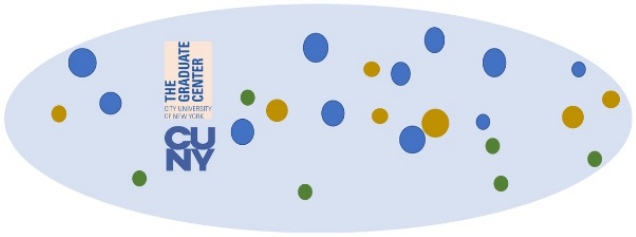
We were the first wired campus, then the first fully wireless campus.

We're the first college to offer a bachelor's degree in artificial intelligence.

Our Robotics Institute, Human-Computer Interaction Institute and Machine Learning Department were the first of their kind.

Dozens of startup companies spin out of SCS each year.

Computer Science Consortia
@ City University of New York



11 senior colleges, **7** community colleges,
6 professional schools, and the **Graduate Center**

The City University of New York (CUNY) is the largest urban university system in the US.

25 institutions: including **11** senior, **7** community and **6** professional schools + **Ph.D.** granting CUNY **Graduate Center**
> **220K** degree-seeking & >**200K** cont. ed students
> **20%** of students from *each* of ethnic groups of Black, White, Hispanic and Asian/Pacific Islander!
~ 50% undergrad from household < $30,000 in income

The Computer Science Consortia of CUNY includes more than **90** faculty from **11** CUNY campuses across five boros of NYC, with a Computer Science Doctoral Program at CUNY Graduate Center, and offers state-of-the-art research and educational opportunities in both Computer Science and Data Science in the heart of Manhattan. Faculty research area of CUNY CS include Artificial Intelligence, Big Data Analysis, Computer Networks, Network Security, Multimedia Systems, Cloud Computing, Programming Languages, Computational Biology, Signal/Image Processing, Computer Vision, Logic, Machine Learning, Natural Language Processing, Algorithms and Theory, and many more.

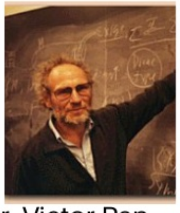
2nd Year Google x CUNY CyberNYC

Eleven faculty with cross disciplinary fields of Computer Science and Linguistics from 8 CUNY campuses have won the 2nd year Google CUNY CyberNYC awards. They are: Top row (left to right): Sarah Ita Levitan, Spencer Caplan, Cecelia Cutler, Md Mahbubur Rahhman; Second row (left to right): Panneer Selvam Santhalingam, Shweta Jain, Rosario Gennaro, Ping Ji; Third row (left to right): Sos Agaian, Nelly Fazio, Elena Filatova. The announcement can be found HERE.

Distinguished GC faculty

Dr. Sergei Artemov
Distinguished Professor: Logic, automated deduction and verification

Dr. Lev Manovich
Professor: Social and cultural computing, data visualization, computers & society, Visual Art in AI era



Dr. Victor Pan
Distinguished Professor: Design of Algorithms, Numerical Computing, Algebraic Computing

Recent Faculty Activities

Dr. Jie Wei receives $2.8M from NSF on AI/ML research on cardiovascular diseases from inexpensive and novel edge units; and is a Co-PI of two NIH grants with a combined budget of $4.2M on investigate simultaneous interpretation applied to medical encounters using self-supervising ML and localized LLM.

Dr. Lei Xie and his lab associates have won three grants totaling $6.6M from the National Institutes of Health to create biology-inspired Artificial Intelligence algorithms that could spur drug discovery for many now-incurable diseases.

Dr. Raffi Khatchadourian receives nearly $600K to address technical debt, which affects machine learning systems found in self-driving cars, medicine, and other fields.

Dr. Samah Saeed is part of a newly funded collaborative project supported by a $65M funding initiative of the Department of Energy, which aims to develop a quantum software stack for next-generation heterogeneous quantum computing devices.

Alums Join as Faculty

The department welcomes our own alums Dr. Raj Korpan and Dr. Jonathan Gryak back as faculty members

Executive Officer: Dr. Ping Ji; email: compsci@gc.cuny.edu

COLGATE UNIVERSITY

Department of Computer Science

Colgate University is a highly selective, private, liberal arts institution with 3,274 students

The Department of Computer Science values **high-quality teaching** and has a **strong research culture** that involves student researchers in the summer and academic year

Bernstein Hall, completed in September 2024, is the new home of the Department of Computer Science. The building promotes collaborations in new **interdisciplinary spaces**, including a hardware makerspace, eye tracking lab, video game lab, and student work studios

The department sends ~30 students to the GHC, Tapia, NYCWiC, AfroTech, and SWE Conferences annually and is **committed to diversifying** our student population

Faculty members have access to **guaranteed funding** for travel, research supplies, and student research assistantships

169

Students enrolled in CS1 in 2023-24

48

Computer Science majors in the class of 2024

9

Tenure-track faculty & **hiring** in 2024

https://www.cs.colgate.edu

@CSatCofC
cs.cofc.edu

COLLEGE OF
CHARLESTON
DEPARTMENT OF
COMPUTER SCIENCE

CS at CofC: By the Numbers

3 floors of classroom, collaboration and research space directly on the Charleston Harbor
500+ undergraduate & graduate students
1 and only Computing in the Arts program in the state of South Carolina
32% female student population
6 undergrad degree programs
2 graduate degree programs
16 faculty members
9 research labs

New Faculty Welcomed

Anurag Tiwari
Instructor

Parvez Rashid, PhD
Assistant Professor

Degrees offered

BS Computer Science
BA Computer Science
BS Software Engineering
BA Computing in the Arts
BS Computer Information Systems
BS Data Science
MS Data Science and Analytics
MS Computer & Information Sciences (joint program)

Research clusters

- Software Security
- AR/VR Simulation
- Game Design
- Cybersecurity and Blockchain
- Critical Art and Technology
- Isomorphism Testing
- Data Mining and IoT Connectivity
- AI, Music and Interaction
- Computing Education Research
- Machine Learning and Data Science
- UAV Detection and Classification
- Smart Education + AI for Social Good

WILLIAM & MARY | COMPUTER SCIENCE

Academic Snapshot

Faculty

- 24% female faculty
- 23 tenured and tenure-eligible faculty
  - 6 professors
  - 6 associate professors
  - 11 assistant professors
- 6 teaching faculty
  - 3 teaching professors
  - 1 associate teaching professor
  - 2 assistant teaching professors

Students

- Undergraduate - 392 declared majors as of Spring 2024
  - 43% domestic students of color
  - 7% international students
  - 32% female
  - 19% Pell grant recipients
  - 12% first-generation
- Graduate - 120 students as of Fall 2024
  - 27% female
  - 33 MS students
  - 87 PHD students

Research Areas

- Security and Privacy
- Software Engineering
- Systems and HPC
- Sensor Networks, Wearable Computing
- AI/Machine Learning/Data Mining
- Graphics
- Computational Sciences/Data Analytics
- Edge Computing
- Health Informatics
- Human-Centered Computing

2023-2024 Highlights

Program Highlights

- The State Council of Higher Education for Virginia (SCHEV) approved William & Mary's **School of Computing, Data Sciences, and Physics**
- W&M launched a **Cybersecurity Center**, led by Computer Science, to facilitate innovation in research and cross-unit curriculum, teaching, and programming
- The department launches two new BS and MS concentrations: **AI/ML** and **Cybersecurity**
- The Wall Street Journal ranks William & Mary 16th among public institutions for a second year in a row for **highest salaries in tech**

40 years of Computer Science BS degrees

Faculty Highlights

- **Denys Poshyvanyk** named IEEE Fellow and ACM Distinguised Scientist, and honored with the 2024 Arts & Sciences Graduate Faculty Mentoring Award
- **Gang Zhou** named W&M Class of 2027 Professor
- **Adwait Nadkarni** appointed as the Inaugural Director of the W&M Cybersecurity Center
- **Matt Chapman** received the inaugural GOAT award for teaching excellence

Student/Alumni Highlights

- Graduate student **Amit Seal** received the International Student Achievement Award
- Ph.D. Alumnus **Kevin Moran** was awarded the 2024 ACM SIGSOFT Early Career Researcher Award
- Graduate student **Collin McDonald** received the inaugural Best Teaching Assistant award

36 years of Computer Science PhDs

2023-2024 IEEE and ACM Honorifics

Denys Poshyvanyk
IEEE Fellow
ACM Distinguished Scientist

Qun Li
IEEE Fellow

Evgenia Smirni
IEEE Fellow
ACM Distinguished Scientist

Gang Zhou
IEEE Fellow

Best/Distinguished Paper Awards

KDD 2024 | FSE 2024 | IEEE S&P 2024 | Chase 2024

NSF CAREER Recipients

Oscar Chaparro

Qun Li

Pieter Peers

Bin Ren

Gang Zhou

Dmitry Evtyushkin

Adwait Nadkarni

Denys Poshyvanyk

2024-2025 New Faculty

Antonio Mastropaolo
Assistant Professor
AI and Software Engineering
PhD, Università della Svizzera Italiana (USI)

Yuchen Wang
Teaching Assistant Professor
Distributed Systems
PhD, Michigan Tech

COLORADO COLLEGE

Colorado College (CC) is a private, highly selective liberal arts college in Colorado Springs, CO. It follows a unique academic calendar called **The *Block Plan.*** Students take one course at a time for 3.5 weeks. The **Math and Computer Science** department at CC has **six computer science faculty members** leading vibrant research programs in broad fields: *software engineering, security, networks, machine learning, artificial intelligence, natural language processing, robot ethics, and human-computer interaction.*

Recent Highlights

- CC computer science faculty published **five research papers** with **two** of them being **student co-authored papers and one** receiving **Best Paper Nominee**.
- **11** research students worked on research projects (2023-2024). **Two students** participated in **REUs** in summer 2023.
- **Three students presented research** at national and regional conferences.
- CC alum **Kathleen Shea** received an Honorable Mention at the 2024 CRA Undergraduate Research Awards.
- A CC team won **Overall Best Hack** at the 2023 HackHarvard Hackathon.
- Dr. Cory Scott is participating in the AAC&U Institute on AI and pedagogy.
- Dr. Danielle Ellsworth was honored with the Dean of the Faculty Teaching Award.

CS Faculty 2024-2025

Janet Burge
software engineering

Danielle Ellsworth
HPC; security; networks

Cory Scott
ML, graph-theory

Varsha Koushik
HCI, accessibility

Ben Nye
NLP, linguistics

Blake Jackson
robot ethics, NLP

Community building events **every block**

Student-focused research seminars every Friday

40%
Female identifying CS majors 2023-2024

Blockly meetings happening every month to discuss topics and approaches for sustained commitment towards **antiracism, diversity, equity, and inclusion**.

4
active research grants

CONTACT:
Co-chair Janet Burge: **jburge@coloradocollege.edu**

COLORADO COLLEGE

MINES | Computer Science

Preparing tomorrow's leaders to bring the computational power and thinking of computer science to all fields of science, engineering, business, medicine and beyond.

At Colorado School of Mines, the Department of Computer Science is one of the fastest growing departments at our institution, we are the second largest after our 8 short years of existence. This is exciting! Our faculty is passionate about innovative teaching and together we are leading in the research and development of computing for the future.

Our Department

- In the fall of 2024, we have just over 1,100 undergraduate and graduate students enrolled as computer science majors. Our graduate student population has grown by just over 35% since 2020 and more than doubled since 2018.
- CS@Mines currently has 28 faculty members. We have 2 new hires this academic year and we're looking to hire several more T/TT assistant professors in 2025!

28 Faculty	25 Industry Partners	134 Graduate Students
1,008 Undergrads	35% Female Faculty	22% Female Undergrads

Our Research

- CS@Mines has a strong emphasis on research, both within the department and collaboratively with other departments, universities, government organizations and industry partners. This year we are continuing to hire more teaching faculty specifically in the areas of AI, Machine Learning, and quantum computing.
- Primary research areas: Computing systems, Machine Learning/AI, Theory, Cybersecurity, Robotics and Human-Computer Interaction.

Our Student and Partner Success

- 14 PhD graduates in the last year. Several of which went directly on to work in academia, military or industry fields.
- Undergraduate student Jessica Gregory won the 2024 Colorado Undergraduate Young Women in STEM Award.
- CS Graduate Ben Breisch won the 2024 Waltman Award, one of the top university awards given to students.
- CS@Mines student Dorian Cauwe was one of three finalists for the Silver Medal Award given out by the Colorado Engineering Council.
- At the 2024 ICPC, Mines students placed 28th among the top 50 universities in the country.
- CS@Mines hosted the seventh annual HSPC. We had 18 schools, 37 teams, 111 competitors, and 74 first time competitors.
- CS@Mines hosted the 2024 NCWIT Aspirations in Computing Ceremony. 125 high school students, industry speakers, and guests celebrated the awardees of the 2024 NCWIT AiC High School and Educator Awards.
- Assistant Professor Kaveh Fathian hosted 14 high school students over the summer for an internship program. Students learned about robotics, assembling robot/sensor hardware, and conducted robotic experiments.
- The Computing Mines Affiliates Partnership Program (C-MAPP) continues to thrive. This year we've partnered with 25 companies from industry, which have funded a total of 82 student scholarships!

FACULTY HIGHLIGHTS

Awards

• Dr. Tolga Can was honored with the 2023-2024 Outstanding Faculty Award
• Faculty received multiple awards and grants across the board from NSF, Air Force, Navy, NASA, DOE, AFOSR, National Labs, Templeton Foundation, Private Industry, and more organizations.

Promotions

• Dr. Tolga Can was promoted to Associate Department Head.
• Dr. Wendy Fisher was promoted to Director of CS Online & Professional Programs.

NEW FACULTY

Aysu Betin-Can
Teaching Associate Professor

Alexandra Chakarov
Teaching Assistant Professor

WE'RE HIRING!

We invite applications for two tenured/tenure-track assistant professors.

Info/Apply:
mines.edu/human-resources/faculty-positions

COMPUTER SCIENCE

COLORADO STATE UNIVERSITY

ABOUT OUR PROGRAMS

- 8 undergraduate concentrations: Computer Science, Software Engineering, AI/ML, Networks and Security, Human Centered Computing, Computing Systems, Computer Science Education, Computing for Creatives
- M.S., M.C.S. and Ph.D. graduate programs
- Award-winning programs offered on campus and online
- Accelerated masters program
- Community college transfer pathways
- Undergraduate residential learning community
- Undergraduate research
- Internships, scholarships and fellowships

RESEARCH HIGHLIGHTS

- *AI Institute for Agriculture and Forest Mitigation and Adaptation to Climate Change* (USDA)
- *DURIP Training Optimization for US Navy and Marine Radio Operations to Assess Cognitive Load and the Managing Extraneous Load* (DOD)
- *TRACE: Transparency, Reflection, and Accountability in Conversational Exchanges* (DOD)
- *EAGER: MedAn: A Framework for Investigating Live Medical Data against Privacy Laws* (NSF)
- *Sampling and Optimization under Global Constraints* (NSF)
- Root Genetics in the Field to Understand Drought Adaptation and Carbon Sequestration (DOE)

DEPARTMENT HIGHLIGHTS

- *50th Anniversary* CSU Department of Computer Science
- *Top 5 in the nation* Fortune Magazine, online CS M.S. program
- *IEEE Fellow* and *3 U.S. patent awards* Sudeep Pasricha
- *Best Teacher Award* CSU, Ramadan Abdunabi
- *Distinguished Administrative Professional Award* CSU, Abhimanyu Chawla
- *Outstanding Distance Educator Award* CSU Online, Chuck Anderson
- *Career Impact Award* CSU Career Center, Francisco R. Ortega
- *Best Paper Award* SIGCSE, Albert Lionelle
- *Best Poster Award* IEEE VR, Natural User Interaction Lab
- *2 Best Paper Awards* BDCAT, Computing Systems Research Group

34 Research and Teaching Faculty

1263 Undergraduates

186 Graduate Students

21% Freshmen Women

$15M Research Funding

Department of Computer Science
279 Computer Science Building
1873 Campus Delivery
Fort Collins, Colorado 80523-1873
Phone: 970-491-6512
Email: compsci_info@colostate.edu

compsci.colostate.edu

@csucomputerscience

CS@CU Computer Science at Columbia University

CS@CU By The Numbers (2023 - 2024)

Student Population: 2,720

1,581 BA & BS	867 MS	272 PhD

Student Statistics:

16,707 class enrollments	1,581 majors	45% of majors are women

Degrees Granted: 1,084

487 BA & BS	314 MS	36 PhD

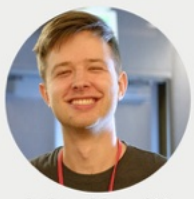
Fellowships:

- 6 NSFGRFP Fellows
- 2 DoD NDSEG Fellows
- 1 Google Fellow
- 1 IBM PhD Fellow
- 3 NSF CISE Graduate Fellowship (CSGrad4US)
- 1 Graduate Fellowships for STEM Diversity (GFSD)

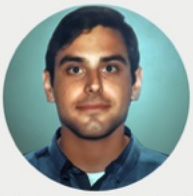
New Faculty

James Bartusek
Quantum/Cryptography

Adam Block
Theory/Machine Learning



John Hewitt
Natural Language Processing

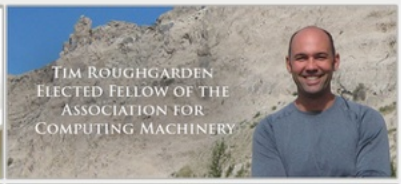


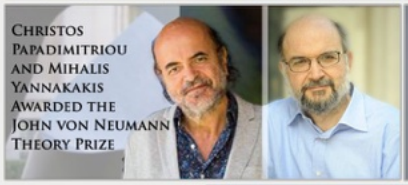
Aleksander Hołyński
Vision/Generative AI

Yunzhu Li
Robotics

Silvia Sellán
Graphics

Major Faculty Awards





Faculty Achievements

65 Faculty

- 1 ACM A.M. Turing Award Winner
- 11 Elected to National Academy of Engineering
- 4 Elected to National Academy of Sciences
- 7 Elected to American Academy of Arts and Sciences
- 2 Elected to American Philosophical Society
- 3 Elected to National Academy of Inventors
- 1 Harvey Prize
- 3 IEEE John von Neumann Medal Winners
- 2 ACM/IEEE Knuth Prize Winners
- 3 AAAI Fellows
- 5 AAAS Fellows
- 3 ACL Fellows
- 4 Guggenheim Fellows
- 21 ACM Fellows
- 17 IEEE Fellows
- 1 Elected to Internet Hall of Fame
- 3 Packard Foundation Fellowships
- 19 Alfred P. Sloan Foundation Fellows
- NSF Awards: 4 PECASE, 40 CAREER, 2 NYI, 4 PYI
- 28 affiliated faculty from 6 schools

Test of Time Awards

Learning Fair Representations (2013)
ICML 2023
Authors: Rich Zemel, Yu Wu, Kevin Swersky, Toni Pitassi, Cynthia Dwork

Predictable Programming On A Precision Timed Architecture (2008)
ESW 2023
Authors: Ben Lickly, Isaac Liu, Sungjun Kim, Hiren D. Patel, Stephen A. Edwards, Edward A. Lee

An Empirical Study of API Stability and Adoption in the Android Ecosystem (2013)
ICSME 2023
Authors: Tyler McDonnell, Baishakhi Ray, and Miryung Kim

A Unified Framework for the Analysis of Side-Channel Key Recovery Attacks (2009)
Eurocrypt '24
Authors: François-Xavier Standaert, Tal G. Malkin, and Moti Yung

Conference Awards

CONCORD: Clone-Aware Contrastive Learning for Source Code
ACM SIGSOFT 2023
Authors: Yangruibo Ding, Saikat Chakraborty, Luca Buratti, Saurabh Pujar, Alessandro Morari, Gail Kaiser, Baishakhi Ray

Chablis: Fast and General Transactions in Geo-Distributed Systems
CIDR 2024
Authors: Tamer Eldeeb, Philip A. Bernstein, Asaf Cidon, Junfeng Yang

I Want to Figure Things Out: Supporting Exploration in Navigation for People with Visual Impairments
CSCW 2023
Authors: Gaurav Jain, Yuanyang Teng, Dong Heon Cho, Yunhao Xing, Maryam Aziz, and Brian Smith

SoCProbe: Compositional Post-Silicon Validation of Heterogeneous NoC-Based SoCs
NOCS 2023
Authors: Gabriele Tombesi, Joseph Zuckerman, Paolo Mantovani, Davide Giri, Maico Cassel dos Santos, Tianyu Jia, David Brooks, Gu-Yeon Wei, and Luca Carloni

Cornell Bowers CIS Computer Science

cs.cornell.edu

13 new faculty to join Cornell Bowers' Department of Computer Science

Joined Fall 2024

Hadar Averbuch-Elor
computer graphics and vision

Matt Eichhorn, algorithms for combinatorial problems

Saikat Dutta, software engineering and ML

Kuan Fang
robotics

Tanya Goyal
NLP

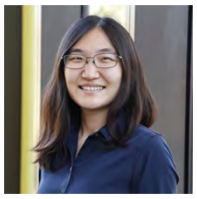
Michael P. Kim
theory, responsible ML

Wei-Chiu Ma
computer vision, robotics

Kristina Monakhova
computational imaging

Nick Spooner
quantum and cryptography

Jennifer Sun
AI for scientific discovery



John Thickstun, ML and generative models

Joining in 2025

Preston Culbertson
robotics

Leah Perlmutter
inclusion in CS

Who we are

Ithaca, N.Y. campus

The Department of Computer Science in the Cornell Ann S. Bowers College of Computing and Information Science is among the best-ranked programs in the world, distinguished by its interdisciplinary spirit, contributions to core challenges in the field, and history of pioneering emerging fields. With an academic footprint spanning the Ithaca campus and the Cornell Tech campus in New York City, the college creates a unique and powerful technology ecosystem.

Cornell Tech campus, NYC

News and highlights

For more news

Kavita Bala named Cornell's 17th provost

Kavita Bala, dean of Cornell Bowers and an expert in computer vision and graphics, has been named Cornell University's 17th provost. Bala's five-year appointment will begin January 1. Thorsten Joachims, the Jacob Gould Schurman Professor of computer science and information science, will serve as interim dean of Cornell Bowers.

Lorenzo Alvisi appointed chair

Lorenzo Alvisi, M.S. '94, Ph.D. '96, the Tisch University Professor in computer science, succeeded Éva Tardos, the Jacob Gould Schurman Professor of computer science, as chair in July 2024.

New 135,000 sq. ft. building near completion

On schedule to open in spring 2025, the building will support critically needed growth of the college's innovative, cross-disciplinary research and teaching.

Cornell Bowers launches AI minor

Students will get a solid foundational understanding of the algorithms and techniques that underlie AI capabilities like ML, automated reasoning, NLP, processing, computer vision, and robotics.

Cisco Research and Cornell Bowers announce partnership

Five faculty projects received funding through a new partnership between Cisco Research and Cornell Bowers that supports projects related to cybersecurity, sustainability, edge computing, and AI.

CS by the numbers

1,400+ undergraduate majors
35% of majors are women
16% are from underrepresented groups
160+ M.Eng. and master's students
270+ Ph.D. students
72 faculty (66 tenure track)

Faculty accolades

Michael and Sheila Held Prize and a Sloan Research Fellowship:
Eshan Chattopadhyay

Packard Foundation Fellow:
Noah Stephens-Davidowitz

NSF CAREER awards:
Abe Davis, Kevin Ellis, and Wen Sun

Named to APS and received WLA Prize:
Jon Kleinberg '93

Named ACM Fellow
Noah Snavely and Kilian Weinberger

Elected AAAI Fellows:
Claire Cardie and Kilian Weinberger

EATCS Presburger Award:
Justin Hsu

SIAM Activity Group Supercomputing Early Career Prize:
Giulia Guidi

Fellow:
David Bindel

Cornell Bowers CIS Information Science

infosci.cornell.edu

For more news

News and highlights

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New 135,000 sq. ft. building near completion

On schedule to open in spring 2025, the building will support critically needed growth of the college's innovative, cross-disciplinary research and teaching.

Cornell Bowers launches AI minor, prepares for new AI+society minor

Students will get a solid foundational understanding of the algorithms and techniques that underlie AI capabilities like ML, automated reasoning, NLP, processing, computer vision, and robotics.

Scholars awarded Cornell Bowers CIS-LinkedIn Grants

Launched in 2022 with a multimillion-dollar grant from LinkedIn, the Cornell Bowers CIS-LinkedIn strategic partnership provides funding to faculty and doctoral students advancing research in AI.

Cornell joins federal AI Safety Institute Consortium

The AI Safety Institute Consortium (AISIC), an initiative of the U.S. Commerce Department, will bring together AI creators and users, academics, nonprofit organizations, and government and industry researchers to support development and deployment of trustworthy and safe AI technologies.

Wang among 16 new faculty to join Cornell Bowers in the next 2 years

Angelina Wang
Associate Professor

Wang studies machine learning fairness and algorithmic bias. She is currently a postdoctoral fellow at Stanford University's Institute for Human-Centered Artificial Intelligence and the RegLab and will join Cornell Bowers in Fall 2025. Wang received her Ph.D. in computer science from Princeton University.

Learn about the other faculty joining Cornell Bowers CIS

Faculty accolades

- **Phoebe Sengers** *named ACM Fellow*
- **René Kizilcec** *awarded Sloan Research Fellowship*
- **Cheng Zhang** *received the 10-year Impact Award from Ubicomp*
- **Jon Kleinberg '93** *selected as a member of the American Philosophical Society; awarded World Laureates Association (WLA) Prize*
- **Claire Cardie** *elected AAAI Fellow*
- **Yian Yin** *named to Forbes 30 under 30 list*
- **Karen Levy's** *book "Data Driven: Truckers, Technology, and the New Workplace Surveillance" received three Best Book awards*

Info Sci by the numbers

730+ undergraduate majors
60% of majors are women
23% are underrepresented groups
150+ MPS students
130+ Ph.D. students
35 faculty in Ithaca and NYC (31 tenure track)

Who we are

The Department of Information Science in the Cornell Ann S. Bowers College of Computing and Information Science brings together leading scholars from across the university's Ithaca and New York City campuses to study the interplay between humans and digital technology.

Bolstered by Cornell's historic, cross-disciplinary strength in computer science and social science, the department has rapidly grown to a position of global leadership in exploring technology through the lenses of law, sociology, policy, economics, design, and more.

Ithaca, N.Y. campus

Cornell Tech campus, NYC

Areas of distinction include: human-computer interaction; computational social science; science and technology studies; ethics, law, and policy; interaction and critical design; network analysis; market and mechanism design; and machine learning and natural language processing. In recent years, the department has added new emphases in digital humanities, accessibility, human-robot interaction, algorithmic fairness, accountability and transparency, information and communication technologies for development (ICTD), and learning analytics.

DALHOUSIE UNIVERSITY

FACULTY OF **COMPUTER SCIENCE**

ABOUT THE FACULTY OF **COMPUTER SCIENCE**

Dalhousie University is located in Halifax, Nova Scotia, and is a top-ranked Canadian research institution with a history of over 200 years of excellence. Dalhousie University belongs to the prestigious U15 group of Canadian Universities that focus on education, research, and innovation.

The Faculty of Computer Science offers undergraduate Bachelor of Computer Science (BCS) and Bachelor of Applied Computer Science (BACS) degrees, a research Masters of Computer Science (MCS), a professional Masters of Applied Computer Science (MACS), an interdisciplinary Masters of Digital Innovation (MDI), and a PhD degree. In addition to a commitment to teaching and research, the Faculty continues to build interdisciplinary strength at the digital intersection of computer science and other fields, from oceans and agriculture to healthcare and the arts.

THE **DETAILS**

UNDERGRADUATE

1,100+ BCS STUDENTS	**400+** BACS STUDENTS	**16,000+** COURSE ENROLMENTS

GRADUATE

80+ PHD STUDENTS	**80+** MCS STUDENTS	**250+** MACS STUDENTS	**100+** MDI STUDENTS

COMPUTER SCIENCE AT DAL

5 RESEARCH CLUSTERS	**62** FACULTY MEMBERS	ONE OF **CANADA'S TOP 15** RESEARCH-INTENSIVE UNIVERSITY	**115+** COUNTRIES REPRESENTED AT DAL

NEW **FACULTY**

Dr. Marta Kryven
Associate Professor

Dr. Suresh Neethirajan
Associate Professor

Dr. Oyebode Oladapo
Assistant Professor

Dr. Gabriel Spadon
Assistant Professor

Dr. Janarthanan Rajendran
Associate Professor

Dr. Anthony Rosborough
Associate Professor

FACULTY **RESEARCH CLUSTERS**

- Artificial Intelligence, Machine Learning & Big Data Analytics
- Human-Computer Interaction, Visualization & Graphics
- Systems, Software Engineering & Networking
- Algorithms, Bioinformatics & Digital Health
- Computer Science Education

[HERE WE CODE]

Here We Code unites industry, social organizations, schools, and universities in a campaign to make Nova Scotia one of North America's most attractive jurisdictions for digital talent and companies.

Learn more at **herewecode.ca**

Duke DEPARTMENT *of* COMPUTER SCIENCE

CS: Duke's Largest Major

276 First-Major Graduates

38% **Women** among CS graduates

67% of all **Duke** graduates took CS courses

NEW FACULTY MEMBERS

Monica Agrawal
Asst. Prof. (2024)

Eric Fouh
Asst. Prof. Practice (2024)

RECENT STUDENT HIGHLIGHTS

Undergraduate Awards 2024

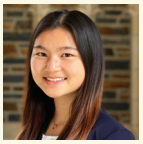
Ayush Jain
Goldwater

Michelle Si
Goldwater

Marie-Hélène Tomé
Goldwater

2024 CRA Outstanding Undergraduate Research Awards

Harry Chen



Michelle Qiu

Dennis Tang

Frankie Willard

Recent Graduate Fellowships

Jabari Kwesi
NSF GRFP

Jonathan Donnelly
NSF GRFP

Ruoyu (Roy) Xie
NSF GRFP

Benjamin Holmgren
DOE CSGF

ACADEMIC PLACEMENTS

Postdoctoral associates and PhDs who recently accepted faculty positions:

Alper Bozkurt:
University of Maryland

Chudi Zhong:
UNC Chapel Hill

Lesia Semenova:
Rutgers University

Mo Zhou:
University of Washington

CURRICULUM

Flexible Pathways:

- **Major concentrations** — AI/ML, Software Systems, and more
- **Interdepartmental majors** — Data Science Math/Statistics, Linguistics + CS, Computational Media
- **Minors** — CS, Computational Biology
- **4+1 Program** — Earn MSCS in 5 years at Duke

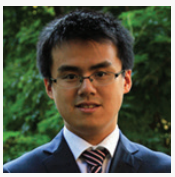
RECENT FACULTY AWARDS

- **Gilbert, Louis, and Edward Lehrman Distinguished Professor:** Cynthia Rudin (recognized 5/23/24)
- **Top 10 Women in the World of AI by AIo:** Cynthia Rudin (2023)
- **David and Janet Vaughan Brooks Teaching Award:** Cynthia Rudin (2023)
- **INFORMS Data Mining Best Paper Award (2023):** Cynthia Rudin
- **ACL Outstanding Paper Award:** Cynthia Rudin (2023)
- **Bell Labs Prize, Second Place:** Cynthia Rudin (2023)
- **ISCA Best Papers of Last 25 Years:** Jeff Chase (2023)
- **FGCS Editor's Choice Paper:** Jeff Chase (2023)
- **SIGMOD Best Artifact Award, Honorable Mention:** Sudeepa Roy (2023)
- **AMIA Data Science Outstanding Paper Award:** Anru Zhang (2023)
- **ACM Prize in Computing:** Amanda Randles (2023)
- **UNISEX Security Distinguished Paper Award:** Danyang Zhuo (2023)
- **PLOS ONE Editorial Board Long Service Award:** Bruce Donald (2023)
- **IEEE ISPASS Best Paper Award:** Lisa Wills (2023)
- **WMWare Early Career Faculty Grant:** Lisa Wills (2023)
- **IEEE Micro Top Picks, Honorable Mention:** Lisa Wills (2023)
- **ACM Outstanding Educator Award:** Nicki Washington and Shaundra Daily (2024)
- **Google AI Research Award:** Pardis Emami-Naeini (2024)

Cynthia Rudin

Jeff Chase

Sudeepa Roy



Anru Zhang

Amanda Randles

Danyang Zhuo

Bruce Donald

Lisa Wills

Nicki Washington

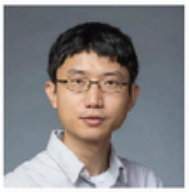
Shaundra Daily

Pardis Emami-Naeini

cs.duke.edu

Duke | DEPARTMENT *of* ELECTRICAL & COMPUTER ENGINEERING

NEW FACULTY MEMBERS



Yu Tong
Asst. Prof.
(2024) ECE, Math

Xiang Cheng
Visting Asst. Prof.
(2024) ECE

Emily Wenger
Asst. Prof.
(2024) ECE

Huanqian Loh
Asst. Prof.
(2024) ECE, Phys

Travis Nicholson
Asst. Prof.
(2024) ECE, Phys

Afsaneh Rahbar
Asst. Prof. Practice
(2024) ECE

Javier Pastarino
Asst. Prof. Practice
(2024) ECE

Our Department By the Numbers

TENURED/ TENURED TRACK	POP	ADJUNCT	RESEARCH	SECONDARY	PHD STUDENTS	MASTERS STUDENTS	UNDERGRADUATE STUDENTS
49	10	11	9	34	225	217	310

RECENT FACULTY AWARDS

- **AAS Member:** Kishor Trivedi
- **ACM CODASPY Lasting Research Award:** Michael Reiter
- **ACM Karl V. Karlstrom Outstanding Educator Award:** Nicki Washington and Shaundra Daily
- **Intel Hardware Security Test of Time Award:** Michael Reiter
- **Jean-Claude Laprie Award, Dependable Computing:** Kishor Trivedi
- **NAI Fellow:** Jungsang Kim, Yiran Chen
- **Quantum Leadership Award, Academic Pioneer of the Year:** Jungsang Kim
- **Srico/USAF Prime Award, MWIR/LWIR Detector Standards:** Willie Padilla
- **Stansell Family Distinguished Research Award:** Shaundra Daily

RECENT GRADUATE FELLOWSHIPS

- **NDSEG:** James Lu, Sujay Kazi
- **NIH F30:** Daniela de Albuquerque
- **NIH F31:** Miles Martinez
- **NSF GRFP:** Adriana Stohn, Brittany Smith, Greg Hernandez, Hengming Li, Sarah Evans, Spencer Hallyburton, Zac Brown
- **SMART Scholarship:** Christopher Keys, Elizabeth Keys
- **TAST NSF Fellowship:** Visrut Sudhakar


James Lu


Sujay Kazi


Daniela de Albuquerque


Miles Martinez


Adriana Stohn


Brittany Smith


Greg Hernandez


Hengming Li


Sarah Evans


Spencer Hallyburton


Zac Brown


Christopher Keys


Elizabeth Keys


Visrut Sudhakar

EMORY UNIVERSITY | Department of Computer Science

http://www.cs.emory.edu/

DEPARTMENT SUMMARY

- 22 Tenured/Tenure Track faculty (and growing!)
- 3 Faculty on Continuous Teaching Track
- Nine (9) NSF and NIH Early Career Awards
- Faculty & Student research funded by NSF, NIH, PCORI, AFOSR, DOE, IARPA, various corporations, agencies, and foundations $4.8MM in FY 2024
- Gifts and unrestricted support ~ $300k per year
- Major Research Areas: AI, HCI, NLP, Information Retrieval, Graph/Data Mining, Machine Learning, High End Computing /Storage, Security and Privacy.

UNDERGRADUATE PROGRAMS

- BS and BA degrees in Computer Science
- AI Major Concentration, Joint majors: Math, Econ, QTM
- New interdisciplinary AI courses and programs, AI Minor
- 2024: 312 majors, 92 BA/BS, 12 honors theses
- ~2500 student enrollments in CS each year
- New Undergraduate AI Minor accessible to students from all disciplines

GRADUATE PROGRAMS

- Interdisciplinary PhD programs in Computer Science and Informatics (CS, BMI, Biostatistics)
- MS in Computer Science with CS, BMI tracks
- Currently 97 PhD, 73 MS students
- 11 PhD, 14 MS awarded 2023-24
- Recent graduate placements include UofT, USC, UCSD, UNC, Amazon, Meta, Google, Microsoft, IBM

STUDENT ACTIVITIES

- Vibrant and engaged student community

- Emory CS sponsors GHC attendance, local GWC, undergraduate *ProrgramHers*, Robotics, and CS clubs, BPC and Women in Computing endeavors
- Student recognitions include: Covid Innovation Award for Teaching & Research; Silver medal at ICPC Programming Contest; KDD Health Day best paper; Alexa competition finalist; Google fellowship

NEW FACULTY

- Three new faculty members join Emory in AY 24-25

Joon-Seok Kim
Asst. Professor

Kai Shu
Asst. Professor

Shengpu Tang
Asst. Professor

FACULTY HONORS

- Promotion, NIH and NSF Career Awards

Nosayba El-Sayed
Assoc Teaching Prof

Carl Yang
NIH K Award

Emily Wall
NSF Career Award

SELECTED HIGHLIGHTS

- *Faculty Distinctions*
  - Li Xiong elected IEEE Fellow
  - Dorian Arnold is SC23 General Chair
  - Jinho Choi and Emora (a caring chatbot) featured in Atlanta Journal-Constitution
- *Recent Grants*
  - Yolanda Rankin: NSF CAREER – Black Feminist Epistemologies: Building a Sisterhood in Computing
  - Carl Yang: NSF – Dynamic Brain Graph Mining
  - Emily Wall: NSF – Modeling and Mitigating Confirmation Bias in Visual Data Analysis
  - Fei Liu: NSF CAREER – Neural Transcript Summarization and Induction of Document Structure
  - Kristin Williams: Halle Institute for Global Research – Issues in Environmental Stewardship
  - Liang Zhao: Department of Homeland Security – Cross Platform Cybercrime Detection
  - Andreas Zufle & Li Xiong: NSF-CSIRO – Understanding Bias in AI Models
  - Joyce Ho: NSF – Aequitas: Comprehensive ML Frameworks to Decode Health Disparities
  - Li Xiong: NIH – Sensor HW and Intelligent Tools for Assessing Health Effects of Heat Exposure
  - Liang Zhao & Andreas Zufle: Homeland Security – Cross-Platform Cybercrime Detection on Interconnected Heterogeneous Networks

Emory University Computer Science
29 September 2024

FLORIDA ATLANTIC UNIVERSITY

Department of Electrical Engineering & Computer Science

By the **Numbers**

Top 3

Fastest-Rising Engineering College in US
U.S. News and World Report
UG Rankings 2020 - 2022

No. 92

Among Public Institutions
U.S. News and World Report
Graduate Rankings 2025

Top Job

Placement Rate
Public Florida Engineering Colleges

Patents

40 Patents Granted in the Last 4 Years

CAREER

9 NSF CAREER Awardees

$27M

Active Sponsored Research Portfolio

1,540
EECS Undergraduate Enrollment

210
EECS Ph.D. Enrollment

1,425
EECS Graduate Enrollment

Research **Centers**

- **Center for Connected Autonomy and Artificial Intelligence,** Dimitris A. Pados Ph.D., Director
- **NSF Industry/University Cooperative Research Center, Center for Advanced Knowledge Enablement (CAKE),** Borko Furht Ph.D., Director
- **Center for SMART Health,** Behnaz Ghoraani Ph.D., Co-Director
- **FPL Center for Intelligent Energy Technologies (InETech),** Yufei Tang Ph.D., Director

Academic **Highlights**

- NSF-HDR: Graduate Traineeship in Data Science Technologies and Applications
- NSF CyberCorps Scholarship for Service: Building the Next Generation Cybersecurity-Ready Workforce
- Offering Cutting Edge Courses in Autonomous Systems, Generative AI for Software development, Conversational AI, Data Analysis for Cybersecurity, and Cloud Security
- All Students Complete Innovation Development Certificate from the National Academy of Inventors
- Hackathon on Responsible AI
- Hackathon on Data Engineering and Precision Medicine with All of Us
- Bootcamps on Cybersecurity, Practical Programing, and Cloud Computing to Give Students a Quick Start in Skill Development

Notable **News**

- $1.8M NIH Grant to FAU Engineering Will Fuel Decoding Human Evolution
- Florida Atlantic Engineering to Lead $1.3M Collaborative Conservation Project
- FAU CA-AI Research Highlighted in 'Nature Reviews'
- FAU Developed Technology Adopted for Next Generation ISO/ITU Video Compression Standards

BEST COLLEGES U.S.News & WORLD REPORT COMPUTER SCIENCE 2024

BEST COLLEGES U.S.News & WORLD REPORT COMPUTER SCIENCE 2025

Click on Headlines for Details. For More Information, Please Visit eecs.fau.edu.

FIU FLORIDA INTERNATIONAL UNIVERSITY

Knight Foundation School of Computing and Information Sciences (KFSCIS)

NEW

BS in Data Science and AI Degree

For more information:
https://www.cis.fiu.edu/degree/bs-data-science-and-ai/

- FIU ranked Top 50 public university
- #45 in CS Programs among public universities (QS World Universities)
- More than 4,500 students enrolled
- KFSCIS awarded Over $20 Million in Research Grant Funding in AY 202-2024

KFCIS Degrees Offered

Undergraduate

- B.S. / B.A. Computer Science
- B.S. Cybersecurity
- B.S. Data Science and Artificial Intelligence
- B.S. / B.A. Information Technology

Graduate

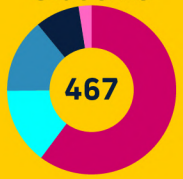
- Ph.D. / M.S. Computer Science
- M.S. Cybersecurity
- M.S. Data Science
- M.S. Information Technology
- M.S. Telecommunications and Networking

KFSCIS by the Numbers

Undergraduate Students

- BS/BA-CS
- BS/BA-IT
- BS-CY

Graduate Students



- PhD/MS-CS
- MS-CY
- MS-DS
- MS-IT
- MS-TN

Faculty

35
Tenured/ Tenure Track

23
Non-Tenure Track

WE ARE HIRING!

School of Computing
DEPARTMENT OF COMPUTER SCIENCE
George Mason University

New Faculty

The Department of Computer Science proudly welcomes 4 new teaching faculty members and 2 new joint appointees, bringing total faculty strength to 60 tenure–stream faculty and 26 teaching faculty.

Ghada Abdelmoumin
Instructional Associate Professor

Archange Destiné
Instructor

Angkul Kongmunvattana
Instructional Professor

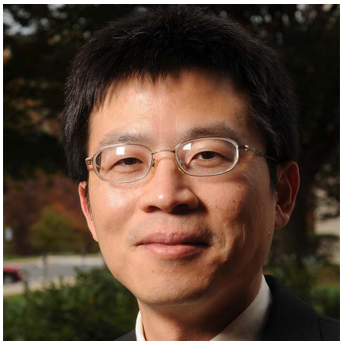
Judy Luo
Instructional Associate Professor

Thema Monroe-White
Associate Professor, joint with Schar School of Policy & Government

Dasha Pruss
Assistant Professor, joint with Department of Philosophy

Faculty Achievements

Antonios Anastasopoulos
GMU Presidential Award for Faculty Excellence in Research



Songqing Chen
IEEE Fellow

Sanmay Das
ACM Distinguished Member

Wing Lam
NSF CAREER Award

Department of Computer Science now ranked #32 in CSRankings.org, and #28 on a five-year basis

Georgia Tech College of Computing
School of Computational Science and Engineering

Visit us at https://cse.gatech.edu

By the Numbers (FY 2024)

- **Tenure-Track Faculty: 24 Full-Time; 5 Joint Appointments**
- **CSE Ph.D. Students: 86 (Male: 73, Female: 13)**
- **CSE M.S. Students: 160 (Male: 107, Female: 53)**
- **School of CSE CS/ML Ph.D. Students: 47 (Male: 43, Female: 4)**
- **School of CSE M.S. Analytics Students: 80 (Male: 55, Female: 25)**

Faculty News

Assistant Professor **Yunan Luo** received a NIH MIRA Award totaling $1.8 million over five years.

Professor **Polo Chau** received a 2023 Google Award for Inclusion Research (AIR).

Assistant Professor **Kai Wang** was selected by Schmidt Sciences to the 2023 cohort for the AI2050 Early Career Fellowship. Wang is the first Georgia Tech researcher to receive the fellowship.

Associate Professor and Associate Chair **Elizabeth Cherry** was elected as a council member-at-large for SIAM and was selected to the 2024 ACC Academic Leaders Network (ACC ALN) Fellows Program.

Professor and Associate Chair **Edmond Chow** was co-author of a paper that won the Test of Time Award at Supercomputing 2023.

Organizational News

The Board of Regents appointed **Srinivas Aluru** as a Regents' Professor. **Polo Chau** was promoted to full Professor.

Full-time, tenure-track faculty grows to highest point in School history with new hires of Assistant Professors **Lu Mi** and **Qi Tang**.

School of CSE partnered with Georgia Tech's Institute for Data Science and Engineering (IDEaS) in sponsoring the 2023 Oak Ridge National Laboratory Core Universities AI Workshop, held Oct. 31-Nov. 1, 2023.

School of CSE co-sponsored the 13th International Conference on Preconditioning Techniques for Scientific and Industrial Applications (Precond 24). Professor and Associate Chair **Edmond Chow** co-chaired the local organization and program committees.

Student News

Ph.D. student **Alec Helbling** and undergraduate student **Mihir Bafna** each won a NSF Graduate Research Fellowship Program (GRFP) award.

Ph.D. student **Hua Huang** received an honorable mention for the 2023 ACM-IEEE CS Georgia Michael Memorial HPC Fellowship.

Ph.D. student **Michael Thomas** was selected by the CDC for the 2023 Public Health Informatics Fellowship.

M.S. student **Grace Driskill** was selected to the 2023 All-ACC Cross Country Academic Team and 2024 All-ACC Indoor Track and Field Academic Team.

Ph.D. student **Dongjin (Jin) Choi** won the best paper award at the 2023 IEEE International Conference on Big Data.

Ph.D. student **Alec Helbling** won a best poster award at IEEE VIS 2023.

Ph.D. student **Jiaming Cui** won a best poster award at SIAM Data Mining 2024.

Ph.D. student **ShengYun (Anthony) Peng** won a best poster award at the 34th British Machine Vision Conference (BMVC 2023).

Ph.D. student **Ziqi Zhang** won a best poster award at the 20th Annual Meeting of the Midsouth Computational Biology and Bioinformatics Society (MCBIOS 2024).

Georgia Tech College of Computing
School of Computer Science

The School of Computer Science is one of five schools in the top ten ranked College of Computing at Georgia Tech.

Research Areas

- Computer Architecture
- Data Systems and Analytics
- Foundations of AI
- Networks
- Programming Languages and Software Engineering
- Systems
- Theory

Research Highlights

School of Computer Science Professor **Ling Liu** and two of her Ph.D. students, **Sihao Hu** and **Tiansheng Huang** created PokéLLMon, the first LLM-embodied AI agent that achieves human-parity performance in tactical battle games

Associate Professor **Yingyan (Celine) Lin**, Professor **Ling Liu**, and Senior Research Scientist **Greg Eisenhauer** were awarded a $1.198 million grant from the NSF to improve 3D reconstruction technology.

By the Numbers

- 48 Tenure-Track Faculty
- 137 Ph.D. students

Faculty & Student Highlights

Assistant Professor **Jan van den Brand** recieved an NSF CAREER Award in 2024 for his work on developing efficient algorithms.

Professor **Santosh Vempala** and Ph.D. alumnus **Ben Cousins** were awarded the Fulkerson Prize for their solution for computing the volume of a convex body.

Assitant Professor **Alexandros Daglis** recieved an NSF CAREER Award in 2023 to improve data center efficency.

Professor **Vijay Ganesh** won several categories at SMT-COMP 2024 with his SMT solver, Z3-alpha.

Georgia Tech College of Computing
School of Computing Instruction

sci.cc.gatech.edu

Department Summary

With more students graduating with a CS degree than any other major at Georgia Tech and every student having a chance to build skills through a foundational programming course, the focus on high-quality computing instruction has never been greater. The School of Computing Instruction (SCI) addresses this need while advancing scholarship in computing pedagogy. It is a key part of the College of Computing, which includes four other schools (or departments) that focus on research centered on various computing-related themes. Charged with the mission of innovating in CS education, SCI is led by a world-class group of teaching faculty and offers a pioneering model for a department at an R1 institution.

Faculty Leadership

SCI includes 20 affiliated faculty who teach a broad range of courses, from foundational undergraduate courses to advanced graduate courses. Faculty are also quite active in premier venues of research and scholarship in CS education. The school is chaired by Olufisayo Omojokun, with Mary Hudachek-Buswell serving as the associate chair. These roles represent an open door for teaching faculty to lead at the highest levels of the College of Computing's administration.

Local and Global Impact

SCI's impact goes beyond the tens of thousands of students who are enrolled in the College's undergrad and graduate programs. Consider the following:

-Dual Enrollment: Each year across Georgia, approximately 1,000 high school students are enrolled in SCI's online versions of CS1 and CS2, earning official Georgia Tech course credits

-MOOCs: Over 30,000 learners across nearly 150 countries have engaged in free MOOCs created by SCI faculty

Recent Scholarship and Engagement

-Enhancing CS1 Education Through Experiential Learning with Robotics Projects (SIGCSE TS 2025)

-Sourcing Projects for CS Capstones: Challenges and Strategies (SIGCSE TS 2024)

-Creative Labs in a CS1 Course: Self-directed Labs Enhance Inclusivity in CS Learning (SIGCSE TS 2024)

-Active Learning at Large-Scale: Using Video Tutorials to Learn by Teaching (SIGCSE TS 2024)

-Learning by Teaching: Insights on Student-Created Instructional Videos for Large CS Classes (ITiCSE 2024)

-Hidden Curricula-Addressing Unseen Challenges within CS Education ($2 million NSF grant 2024)

Addressing Challenges

Beyond the questions and challenges highlighted above, SCI is currently investigating several other domains like:

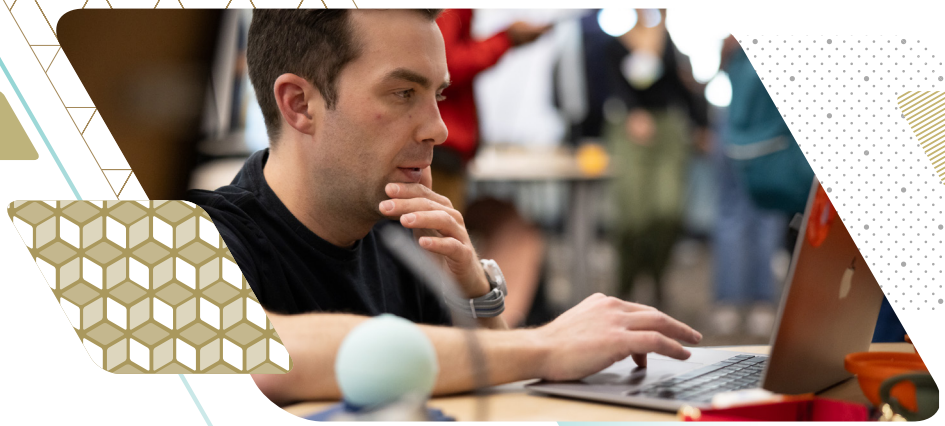
-Expanding and updating our CS+X initiatives as computing increasingly becomes cross-disciplinary

-Using AI to support teaching and learning

-Strategically integrating generative AI software development principles in curricula

-Increasing dual enrollment access to underserved populations

Georgia Tech College of Computing
School of Interactive Computing



Research Awards, Honors, and Achievements

- The School earned $16.4M in new research funding in FY23. The total funding rasied in its 15-year history is over $100M.
- Regents' Professor **John Stasko** received the IEEE's Visualization and Graphics Technical Community (VGTC) 2023 Lifetime Achievement Award. He was also named and Association of Computing Machinery (ACM) Fellow.
- Professor and Chair **Shaowen Bardzell** and Associate Professor **Munmun De Choudhury** were inducted to the ACM SIGCHI Academy.
- Associate Professors **Matthew Gombolay** and **Humphrey Shi,** along with Assistant Professors **Sehoon Ha, Harish Ravichandar,** and **Bo Zu**, were honored with the National Science Foundation (NSF) CAREER Award.
- Assistant Professor J**essica Roberts**, Associate Professor **Alex Endert**, and **Jayma Koval** earned a $1.8 million grant from the NSF to boost their efforts in promoting air polution data literacy among middle school students and the public.
- Professor **Carl DiSalvo** and Associate Professor **Andrea Parker** received Google's Awards for Inclusion Research (AIR).
- Associate Professor **Neha Kumar** was re-elected as president of ACM SIGCHI, and Assistant Professor **Naveena Karusala** was elected as vice president of communications. They began their three-year terms in July 2024.

School Leadership

- **Shaowen Bardzell** –Professor and Chair
- **Thomas Ploetz** – Professor and Associate Chair for Graduate Studies
- **Sashank Varma** – Professor and Associate Chair for Curriculum Management
- **Alex Endert** – Associate Professor and Associate Chair for Operations and Special Initiatives
- **Ashtria Jordan** –School Administrative Officer
- **Nikki Roux** – Assistant Director for Financial Operations.

Faculty, Student, and Staff Numbers

- **Total staff and faculty – 109**
  - Professors emeritus **3**
  - Professors of the practice **3**
  - Professors **21**
  - Associate professors **15**
  - Assistant professors **17**
  - Adjunct professors **33**
  - Research scientists **8**
  - Staff **18**
- **Total students – 350**
  - Ph.D. students **197**
  - Master's students **153**

Grand Valley State University College of Computing

As the Dean of the College of Computing at Grand Valley State University, I am proud to share that we are a newly established college, focused on driving innovation and shaping the future of technology. Our mission is to provide students with a cutting-edge education in fields like computer science, cybersecurity, data science and beyond, while also fostering meaningful collaboration between industry and academia. This new chapter represents our strengthened commitment to preparing the next generation of technology leaders, expanding research opportunities, and deepening our partnerships in the Greater Grand Rapids area, State of Michigan, and globally. Together, we are pushing the boundaries of what's possible and creating a brighter, more innovative future for our community and beyond.

Marouane Kessentini, Ph.D.
Dean of the College of Computing

Experience Computing at GVSU by the Numbers

44 tenured/tenure track

10 teaching faculty

8 open rank faculty positions for 25-26 academic year

9 degrees offered

1,277 total students

922 undergraduate students

355 graduate students

23% students identify as female

Recent Awards & Grants

NSA-designated College of Computing with a CAE-CD in Cyber Defense.

Dr. Alex Lalejini awarded an NSF grant for advancing emerging technologies through interdisciplinary research.

Dr. Zachary DeBruine awarded a CZI grant to develop AI-driven virtual cell models.

Recent alumnus, **Dr. Gloire Rubambiza**, earned his PhD from Cornell University, focusing on Systems, Networking, and Human-Computer Interaction.

$200K Over $200K in industry applied research contracts.

Web: gvsu.edu/computing
Email: computing@gvsu.edu
Social: @gvsucomputing

Grand Valley State University College of Computing

DEPARTMENT OF COMPUTER SCIENCE

921 HMC undergrads

50/50 Overall gender diversity

$117,500 Median grad salary

No. 27 computer science program
(top CS program at an undergrad-only institution) *U.S. News & World Report*

CS majors at HMC: 46%

Percent female in CS majors at Mudd:
53% CS **40%** CS/math **55%** CS/physics **68%** math-comp-bio

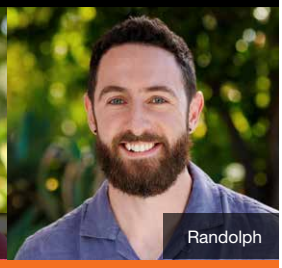
Harvey Mudd College offers a computer science program that provides students with a strong background blending experimentation, theory and design. Computer science majors are exposed to a balance of foundational theory and practice that includes collaborative, hands-on student-faculty research experiences. Through its internationally recognized Clinic Program, students conduct advanced research for industry, government and nonprofit clients. Well-prepared HMC graduates go on to prominent PhD programs and innovative jobs with top companies.

NEW CS AND CLIMATE JOINT MAJOR

This major is designed to help students develop a holistic understanding of climate change, with emphasis on the interaction of physical and human systems. Students complete foundational coursework in the principles of CS, data structures, discrete mathematics and professional computing practices, computer systems or algorithms, and CS electives. Our philosophy supports graduates who are human-factor conscious, ethics aware and impact literate.


Chang


Ojha


Randolph

NEW FACULTY MEMBERS

Jonathan Chang '17 utilizes technical and social perspectives to promote healthier interactions in online communities. PhD, Cornell University

Vidushi Ojha '17, a former software engineer, seeks to broaden participation in computing by examining the institutional policies and classroom practices that foster students' learning and wellbeing. PhD, University of Illinois at Urbana-Champaign

Tim Randolph's research interests intersect computer science and mathematics and focus on using new mathematical tools on hard problems in exact and parameterized complexity. PhD, Columbia University

DEPARTMENT NEWS

Barry Goldwater Scholarship
Kerria Pang-Naylor '25, a joint CS and mathematics major, studies bounded-confidence models, probabilistic inference and machine learning theory, and supervised machine learning algorithms with inductive orientation vectors.

U.S. DOE Computational Science Graduate Fellowship
Tanvi Krishnan '24 (CS and physics) is pursuing a PhD in experimental neutrino physics at Harvard University, and William Yik '24 (CS and math) seeks a PhD in atmospheric sciences at University of Washington in Seattle.

Teaching and Service Awards
Zach Dodds, Leonhard-Johnson-Rae Professor of Computer Science and a faculty member at Harvey Mudd for 25 years, received the College's Henry T. Mudd Prize for extraordinary service. He's co-developer of the College's ground-breaking CS5 course, co-founder of the MyCS Middle-years Computer Science program and a researcher of robotic hand/eye coordination and computer vision-based robotics. Lucas Bang, assistant professor of computer science, received the Outstanding Faculty Member award for being an outstanding mentor to students.

Other Faculty News
Professors Lucas Bang, Katherine Breeden and George Montañez were promoted to associate professors with tenure.

SELECTED 2023–2024 CLINIC PROJECTS

The HMC CS Clinic Program brings together sponsor organizations with problems to solve and student teams who have the skills to solve them. **bit.ly/HMCcsclinics**

ConcentricLife – Students made a dance app for pediatric PT patients.

Hawai'i Keiki Museum – The team constructed a volcano display for a children's science museum exhibit, working collaboratively with a high school team.

Monterey Bay Aquarium Research Institute – Students used augmented reality to enhance the capabilities of remote submersibles.

Musizi University – Students developed general-education computing curricula.

COMPUTER SCIENCE at HOFSTRA UNIVERSITY

NEW FACULTY FALL 2024

Marco Romanelli

PhD, École Polytechnique, Paris, and Inria, France.
Expertise: Information theory and machine learning; trustworthy and secure AI.
2024 ISSNAF Award Finalist

Zonghua Gu:

PhD, University of Michigan, Ann Arbor.
Expertise: Embedded and cyber-physical systems

BA/BS Programs

Computer Science
Computer Science and Cybersecurity
Computer Science and Mathematics
Computer Engineering

MS Programs

Computer Science
Cybersecurity
Data Science

Concentrations

Artificial Intelligence
Networking and Security
Web Engineering
Gaming and Graphics
Entrepreneurship

Dual Degree

5-year accelerated BS/MS or BA/MS programs available

13 full-time faculty | **76** graduate students | **402** undergraduate students


Simona Doboli


Oren Segal


Jianchen Shan


Krishnan Pillaipakkamnatt

1.6M NATIONAL SCIENCE FOUNDATION FACULTY GRANTS:

1M for high-performance computing GPU cluster (Simona Doboli/Oren Segal)

$330K for high-performance cloud operating system – Octopus OS (Jianchen Shan)

$273K for increasing diversity in the AI undergrad talent pipeline (Krishnan Pillaipakkamnatt)

Highlights:

- The DeMatteis School undergraduate computer science program climbed 17 spots and is now in the top third nationally in the *2025 U.S. News & World Report Best Colleges* rankings.

Student research continues to take center stage in the Computer Science Department:

- Edward Guo '26 (BS, Computer Science) is first author of *Optimizing Task Scheduling in Cloud VMs With Accurate vCPU Abstraction*, EuroSys 2025, accepted.
- Cynthia Zhao '24 (MS, Computer Science) is the recipient of the Provost Research Award for her master's thesis, September 2024.
- Jordan Miner '27 (MS, Computer Science) co-authored a workshop paper *NLP Case Study on Predicting the Before and After of the Ukraine-Russia and Hamas-Israel Conflicts*, EMNLP 2024, accepted.
- Additionally, seven undergraduate computer science students took part in the DeMatteis School's Advanced Summer Program in Research (ASPiRe) in 2024, conducting research in AI, text mining, cloud computing, and cybersecurity.

hofstra.edu/computerscience

ILLINOIS TECH | Computer Science

https://www.iit.edu/computer-science

Faculty

- 30 full-time CS faculty (tenure-track and teaching)
- **NSF CAREER**: Binghui Wang, Cynthia Hood, Mustafa Bilgic, and Ioan Raicu
- **Fellows**: Francis Leung, Peng-Jun Wan, Sanjiv Kapoor, and Xian-He Sun
- **Research Areas:** Computer Architecture, Computer Vision, Cybersecurity, Distributed Systems, Human Computer Interaction, High Performance and Parallel Computing, Machine Learning, Networks, Programming Languages, Software Engineering, Systems, Virtual and Augmented Reality, Wireless Networks, Theory.

Degree Programs

Bachelors

- Artificial Intelligence
- Computer Science
- Computer Information Systems
- Data Science

Masters

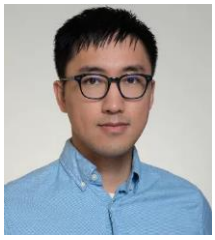
- Artificial Intelligence
- Computer Science
- Cybersecurity
- Data Science
- Computational Decision Sciences & OR

PhD

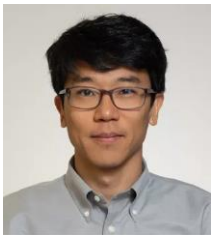
- Computer Science

New Faculty

André Bauer
Assistant Professor
Perf. & Systems Engineering



Minxuan Zhou
Assistant Professor
Computer Architecture



Yutong Wang
Assistant Professor
Theory of Machine Learning

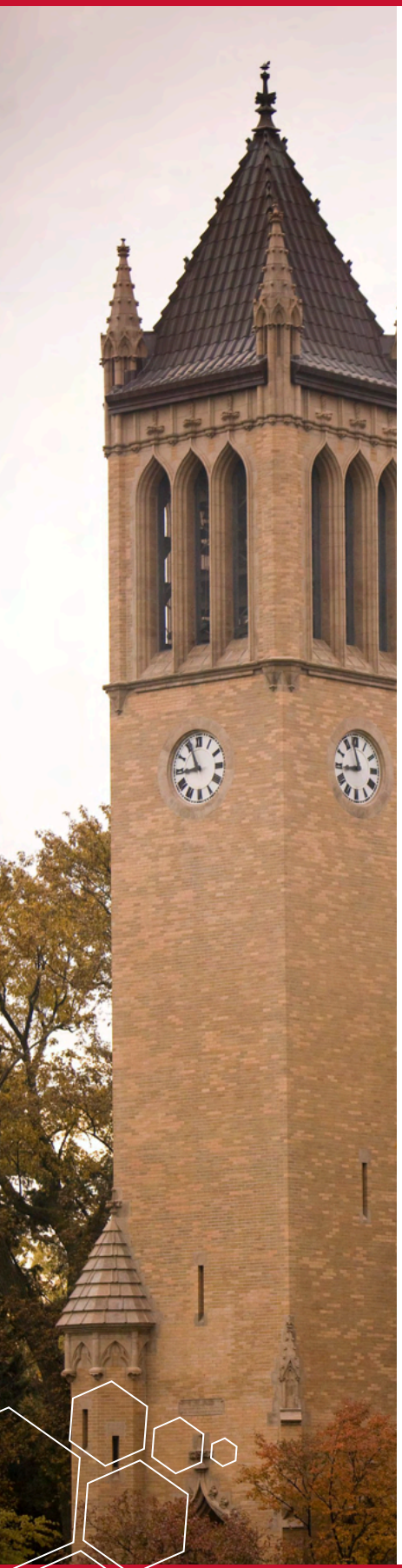
A Sample of Recent News

- Binghui Wang received NSF CAREER Award for "Towards Trustworthy Machine Learning via Learning Trustworthy Representations: An Information-Theoretic Framework" (link)
- Nik Sultana received NSF-CNS Award for "Enhancing Scientific Research Infrastructure with Network Attestation and Provenance" (link), the URA VSP Scholarship (link), the Best Demo Award at INDIS (link), and the Outstanding Short Paper Award at HPEC (link).
- Undergraduate students Sean Cummings and Hyunsuk Bang (advised by Nik Sultana) were the runner-ups for the CRA Outstanding Undergraduate Research Award (link)
- Farzaneh Derakhshan and Limin Jia (CMU) received the NSF SATC Core Award, for "Mixed Assurance Reasoning via Modal Logic" (link)
- Xian-He Sun, Gerd Heber, and Anthony Kougkas received a $4M grant from NSF for "IOWarp: Bending the I/O Fabric for Advancing AI-Infused Scientific Workflows" (link)
- Mustafa Bilgic, Matthew Shapiro, and Aron Culotta (Tulane) received NSF Award for "Socio-linguistic modeling to understand the long-term dynamics of news engagement in online media" (link)
- CS undergraduate programming team, coached by Gruia Calinescu and Farshad Ghanei, advance the regionals and compete in the North America Championship of the International Collegiate Programming Contest (link)

IOWA STATE UNIVERSITY

Department of Computer Science

cs.iastate.edu



Founded in 1969, we are the **#1 computer science program in Iowa**. We lead the way in creating, sharing, and applying computing knowledge to continue to grow our legacy of excellence.

1,517 undergraduate students

*640 Software Engineering Students

261 graduate students

* 62 M.S. in CS
34 M.S. in AI
165 Ph.D.

308 female students

*61 M.S. & Ph.D.
147 Undergraduates
100 Software Engineering

OUR DEGREE PROGRAMS

UNDERGRAD

- BS in Computer Science
- BA in Computer Science
- BS in Software Engineering
- BS in Data Science
- Minor in AI

GRADUATE

- Minor in AI
- MS in Computer Science
- MS in AI
- BS in Computer Science and MS in Computer Science
- BS in Computer Science and MS in AI
- Ph.D. in Computer Science

2022-2032 STRATEGIC PLAN

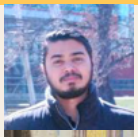
We are thrilled to share with you the strategic plan until 2032, which acts as a compass for our department; guiding us into the next decade toward a brighter future. The Strategic Plan was the culmination of planning and development accomplished by the Strategic Plan Committee.

FULL STRATEGIC PLAN

MULTIPLE NEW DEGREE PROGRAMS

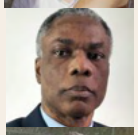
- *B.A. in Computer Science*
- *B.S. in Data Science*
- *M.S. in AI*

NEW FACULTY



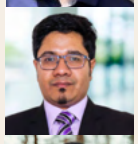
ASHWIN KALLINGAL JOSHY
Lecturer

REGIS KOPPER
Assistant Professor

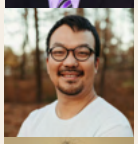


AMBROSE KOFI LAING
Associate Teaching Professor

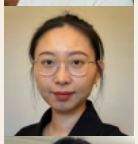
TRENT MUHR
Lecturer



AMIT KUMAR SIKDER
Assistant Professor



BOWEN WENG
Assistant Professor



WENTING XU
Assistant Teaching Professor

LIN YAN
Assistant Professor

FACULTY OVERVIEW

44 faculty members

33 tenure-track faculty

27% female tenure-track faculty

$11M+ in external grant funding

NSF CAREER AND PYI AWARD WINNERS

MYRA COHEN

YAN-BIN JIA

WEI LE

QI LI

JACK LUTZ

ANDREW MINER

WALLAPAK TAVANAPONG

NOK WONGPIROMSARN

RESEARCH CLUSTERS

- AI, machine learning, and data science
- Bioinformatics and computational biology
- Human computer interaction
- Software engineering and programming languages
- Robotics and autonomous systems
- Systems and networking
- Theoretical foundations

Johns Hopkins Computer Science

We are proud to be a diverse and collaborative community on the cutting edge of computing and technology. At Johns Hopkins University, the nation's first research institution, we are dedicated to upholding our long-standing tradition of excellence in research, education, and civic engagement.

New Tenure-Track Faculty

Gillian Hadfield

Eric Nalisnick

Michael Oberst

Tianmin Shu

Jessica Sorrell

Ziang Xiao

2024 Highlights

- **Eric Nalisnick** receives Google Award for Inclusion Research
- **Gregory D. Hager** elected to head NSF Computer and Information Science and Engineering Directorate
- **Suchi Saria** recognized as one of Modern Healthcare's "Top Women Leaders"
- **Anqi Liu** receives Amazon Research Award
- **Hopkins team** awarded over $20 million in ARPA-H funding to further tumor-removal research
- **Mark Dredze** receives Optum Research Award

Programs Offered

- BS in Computer Science (ABET-accredited)
- BA in Computer Science
- Computer Science Minor
- Combined BS/MSE in Computer Science
- MSE in Computer Science
- MS in Security Informatics
- PhD in Computer Science

BY THE NUMBERS

Students

704 undergraduates
279 master's students
231 PhD students

55%
of undergraduates are engaged in research

40%
of undergraduates identify as female

$34 MILLION
in active awards

Faculty & Researchers

38 tenure-track faculty
10 teaching faculty
5 research faculty
15 research scientists & postdoctoral fellows

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@Johns Hopkins Department of Computer Science

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Department of Computer Science
3400 N. Charles Street, Baltimore, MD 21218

Department of Computer Science and Technology

The Dorothy and George Hennings College of Science, Mathematics and Technology

New Faculty

Dr. Iyadunni Adenuga
Ph.D., Pennsylvania State University
Human Centered AI, Explainable AI

Dr. Navya Martin Kollapally
Ph.D., New Jersey Institute of Technology
Natural Language Processing, Ontologies

Dr. Jiaxin Lei
Ph.D. University of Texas, Arlington
Systems Programming, Networking, Cloud Computing

BEST COLLEGES U.S.News SOCIAL MOBILITY 2024

NATIONAL CENTERS OF ACADEMIC EXCELLENCE IN CYBERSECURITY

Current Grants

Advancing Breast-Cancer Detection in Ultrasound Imaging through Active- and Weakly-Supervised Learning
NSF, $201,312

Socially Informed Traffic Signal Control for Improving Near Roadway Air Quality
NSF, $203,981

Blending Socioeconomic-Inclusive Design into Undergraduate Computing Curricula to Build a Larger Computing Workforce
NSF, $800,000

News Highlights

- Students from the Department of Computer Science and Technology shared their research on a national stage scoring the top three places in the Great Minds in STEM (GMiS) Conference undergraduates research poster competition.
- Oluwatunmise Alabi (CS'24) research earned her both recognition as a finalist for the NCWIT Aspirations, national computing award and a job offer as a software engineer at Northrop Grumman.
- The CS/IT department welcomed its largest class in history with 189 incoming 1st-year CS/IT students.

Degrees Offered

- **Computer Science (B.S.) (ABET accredited)**
- **Computer Science (B.A.) (2nd major)**
- **Computer Information Systems (B.S./M.S.)**

Options: General, Cybersecurity, Data Science, Information Systems

- **Information Technology (B.S.) (ABET accredited)**
- **Information Technology (B.S.)/ Computer Information Systems (M.S.) 5-Year Option**

Minors: Bioinformatics, Computer Science Education, Cybersecurity

Research Topics

Artificial Intelligence
Machine Learning
Database Systems
Virtual/Augmented Reality

AI

Human Computer Interaction
Cybersecurity
Systems Programming
Software Testing

Located just 16 miles from **NYC**

CS & IT By The Numbers

686
Undergraduate CS Students

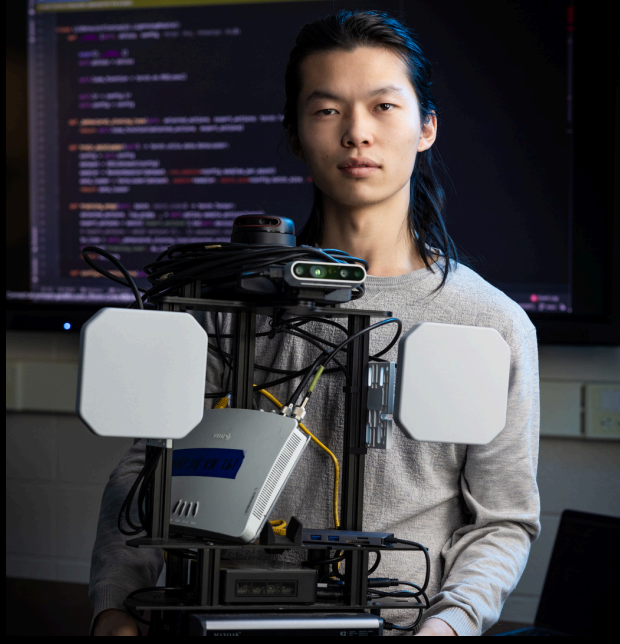
246
Undergraduate IT Students

932
Total CS/IT Students

55%
CS/IT Faculty at Kean identify as Female

KENNESAW STATE UNIVERSITY

COLLEGE OF COMPUTING & SOFTWARE ENGINEERING



Yongshuai Wu, Information Technology

DREAMING UP TECH INNOVATIONS

Home to 6,000 students and more than 100 full-time faculty, KSU's College of Computing and Software Engineering (CCSE) supports education, research and industry partnerships to unlock the power of computing and better people's lives.

Mercy Olaniran, Computer Science

Our Academic Units

- Computer Science
- Software Engineering and Game Development
- Information Technology
- School of Data Science and Analytics

Our Degrees

CCSE offers six (five ABET-accredited) undergraduate degrees and six masters programs, including the **newly inaugurated MS in Artificial Intelligence**. We're also home to a Ph.D program in Computer Science and **the nation's first Ph.D. in Data Science and Analytics.**

To support colleague departments, we also co-teach a BS in Cybersecurity and MS in FinTech, Healthcare Management & Informatics, and Intelligent Robotic Systems.

CCSE RESEARCH AT-A-GLANCE

38
RESEARCH LABS + CENTERS

$1.7M
RESEARCH FUNDING (2024 YTD)

1K+
PEER-REVIEWED PUBLICATIONS

PARTNERS & GRANT SUPPORT SNAPSHOT

DARPA
Home Depot
HPCC
Incomm
National Science Foundation
National Institutes of Health
Oracle
US Department of Agriculture

CONTACT US

(470) 578-5572

Atrium (Building J) J330
680 Arntson Drive
Marietta, GA 30060

www.kennesaw.edu/ccse

LEHIGH UNIVERSITY
Department of Computer Science & Engineering

Departmental Statistics

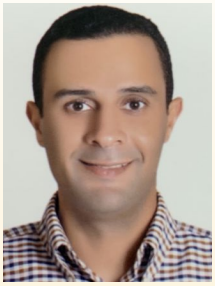
31	**Full-time tenure-track and teaching faculty**
579	**Undergraduate majors (the largest at Lehigh) across four bachelor's degrees in Computer Science**
1984	**Year first PhD in CS awarded at Lehigh. Celebrating 40 years of Computer Science PhDs!**
88	**Graduate students in Computer Science**

$89,272
Mean Salary for Lehigh CS Majors (2023)

$101,871
Mean Salary for Lehigh CSB Majors (2023)

Welcoming New Faculty in 2024

Mushu Li
Assistant Professor

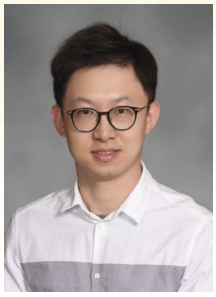


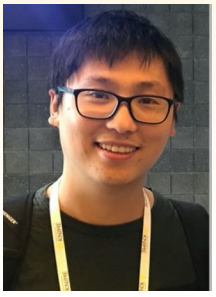
Ahmed Hassan
Assistant Professor

Eric Obeysekare
Teaching Assistant Professor

Grant Recipients

Lehigh Assistant Professors **Yu Yang** and **Lichao Sun** were recently awarded a 3-year NSF grant titled, "ATD: Privacy-preserving Federated Neural Operators for Human Mobility Prediction on Cross-Domain Infrastructures". **See Details of Award here.**



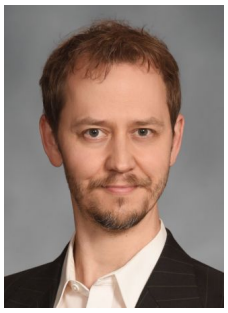


Profile: Arielle Carr

Arielle Carr, Lehigh Assistant Professor, has been named as a 2024 SIAM Science Policy Fellow. This prestigious program recognizes early career professionals committed to advancing science policy and advocacy.

Profile: Eric Baumer

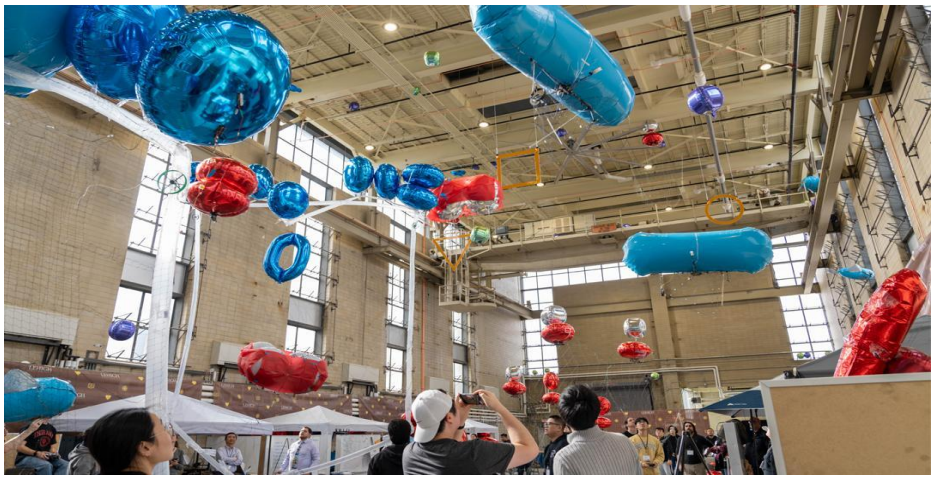
Lehigh Associate Professor **Eric Baumer** co-authored the CCC Social Technologies Workshop Report, after attending the CRA workshop on Social Technology Research last Fall. **View Report here.**



Student Spotlight

Computer science PhD student **dePaul Miller '20 '23G** received a Fellowship Award from the Koerner Family Foundation (KFF). Miller works with associate professor Roberto Palmieri and the Scalable Systems and Software (SSS) research group on high-performance heterogeneous and distributed systems. **Read his PPoPP 2024 poster paper here.**

Lehigh Hosts "Defend the Republic" Drone Competition at Mountaintop:: *Held for the first time at Lehigh in High Bay C2 on the Mountaintop Campus, teams from Lehigh and seven other universities across the country competed in this event designed to drive research and innovation.* **Read about it here.**



MIT EECS

Asu Ozdaglar	Joel Voldman	Sam Madden	Antonio Torralba
Department head	Faculty head, EE	Faculty head, CS	Faculty head, AI + D

One department; three interlinked faculties. Almost 50% of all MIT undergraduates find their home in EECS.

WE INVENT THE FUTURE

Recent Faculty Hiring (2019-2024)

By The Numbers

149 total faculty

- **48 CS**
- **52 AI+D**
- **49 EE**

7 of them shared with other departments across MIT

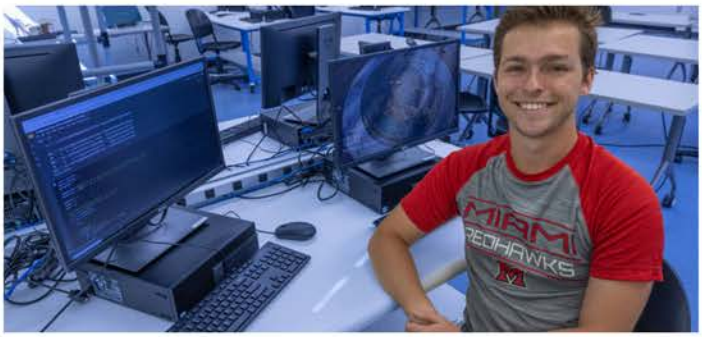
850 graduate students

1,699 undergraduates

363 MEng students

Highlights

- **US News and World Report 2024 undergraduate program rankings:** #1 in Electrical/Electronic/Communications, Computer Science, #2 in Computer Engineering
- **US News and World Report 2024 graduate program rankings:** #1 in Electrical/Electronic/Communications, Computer Science, Computer Engineering
- **Jacob Andreas**, **Adam Belay**, and **Arvind Satyanarayan** - 2024 Sloan Research Fellows
- **Hari Balakrishnan** - 2023 Marconi Prize
- **Marc Baldo** - elected to the National Academy of Engineering
- **Regina Barzilay** - elected to the National Academy of Medicine
- **Piotr Indyk and Daniela Rus** - elected to the National Academy of Sciences
- **Tamara Broderick** and **Caroline Uhler** - 2024 IMS Fellows
- **Priya Donti** - AI2050 Early Career Fellow
- **James Fujimoto** - co-recipient of the 2023 National Medal of Technology and Innovation and of the 2023 Lasker-DeBakey Clinical Medical Research Award (along with Eric Swanson SM '84 and David Huang '85, SM '89, PhD '93)
- **Martin Wainwright** - 2024 Guggenheim Fellowship Award
- **Ryan Williams** - 2024 Godel Prize



Computer Science and Software Engineering at Miami University

Through Miami University's Computer Science and Software Engineering (CSE) department, students can access emerging technology hands-on through majors, minors, certificate programs, internships, and co-ops.

MAJORS

Computer Science (B.S.)

Computer Science (B.A.)

Software Engineering (B.S.)

Cybersecurity (B.S.)

DEPARTMENT FEATURES

- Lectures given by industry experts
- Hands-on training in programming languages
- Specialized instruction in generative AI
- Professional experience in a team setting

MINORS

Computer Science

Bioinformatics

Games + Simulation

Humanitarian Engineering and Computing

Learn More
CSE.MiamiOH.edu

POST-GRADUATE PLACEMENT

- Software Engineer at Tesla
- Computer Technologist at Google
- Ph.D. Candidate at Princeton
- Chief Technology Officer at their own start-up
- AI Think Tank Operator
- Silicon Valley entrepreneur
- Engineer at NASA

GRADUATE PROGRAMS

M.S. in Computer Science (with thesis)

Master of Computer Science (course only)

COLLEGE OF ENGINEERING AND COMPUTING
Department of Computer Science and Software Engineering

Top 10
Best Software Engineering Degree Programs of 2025
INTELLIGENT.COM

Nationally Ranked
For Best Undergraduate Computer Science Programs
U.S. NEWS & WORLD REPORT 2025 BEST COLLEGES

Michigan Technological University
Department of Computer Science

Michigan Technological University 1885

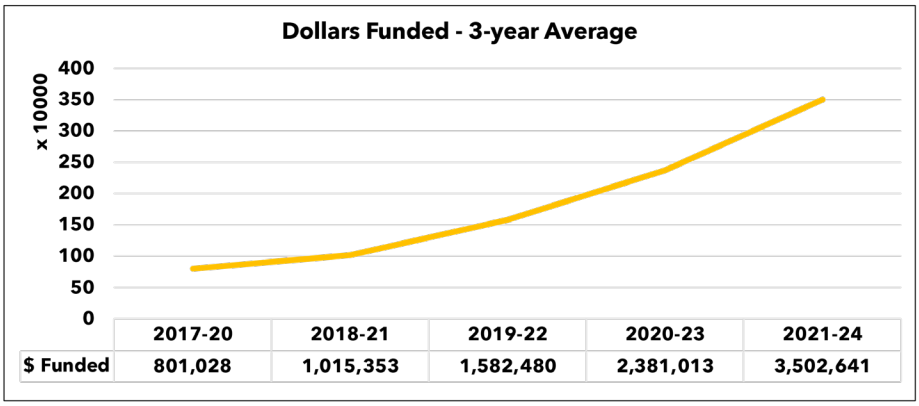
Faculty and Student Recognition

- Michigan Tech was designated a National Center for Academic Excellence in Cyber Research by the National Security Agency (NSA).
- Dr. Bo Chen and Niusen Chen '23 (PhD in Computer Science) received the 2024 Bhakta Rath Research Award. University-wide, only one advisor/advisee research pair receives this prestigious annual award.
- Dr. Charles Wallace received the 2024 Michigan Technological University Distinguished Teaching Award.
- Dr. Charles Wallace was named a 2024 MASU (Michigan Association of State Universities) Distinguished Professor.
- Vincent Barfield '24 (BS in Computer Science and Mathematics) was the 2024 Spring Commencement undergraduate speaker.

Funding Highlights

- Brown, L., et al., NRT-HDR: Integrative Training in Data Science-Enabled Sensing of the Environment for Climate Adaptation (DataSENSE), NSF
- Chen, B., Wang, Z., SaTC: CORE: Small: Hardware-assisted Self-repairing in Decentralized Cloud Storage against Malicious Attacks, NSF
- Havens, T., Enabling the Future of Great Lakes Biological Resource Assessment, DoI
- Havens, T., CR-02: Robust Algorithms for Complex Autonomous Robot Systems, Navy
- Nekritch, Y., AF: Small: Fundamental Geometric Data Structures, NSF
- Onder, S., Collaborative Research: SHF: Medium: Vectorized Instruction Space (VIS), NSF
- Ureel, L., et al., Supporting Learning and Enhancement of Programming Competencies Through Use of Immediate Critiques of Antipatterns in Novice Programmer Code, NSF
- Vertanen, K., Collaborative Research: HCC: Medium: Enhancing Communication and Interaction for Individuals with Severe Disabilities: A Novel Interface Leveraging Multiple Information Sources, NSF
- Wallace, C., Redesign and Implementation of USDA Proxy Language, ARIA

External Funding ($)



	2017-20	2018-21	2019-22	2020-23	2021-24
$ Funded	801,028	1,015,353	1,582,480	2,381,013	3,502,641

Faculty

- 19 Tenure-track/Tenured
- 5 Instructional Track

New Faculty

- Dr. Koloud Al Khamaiseh, Assistant Teaching Professor
- Dr. Stella Otoo, Assistant Teaching Professor

New Programs

- Graduate Certificate in Foundations of Cybersecurity

Fall '23 Enrollment

Computer Science

- BS 466
- MS 31
- PhD 32

Software Engineering

- BS 134

Cybersecurity

- MS 11

Data Science

- BS 8
- MS 39

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csdept@mtu.edu
906-487-2283

Computing [MTU]
Department of Computer Science

RECENT AWARD WINNING FACULTY

MISSISSIPPI STATE UNIVERSITY
JAMES WORTH BAGLEY COLLEGE OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Dr. Tanmay Bhowmik

NSF CAREER Award
"CAREER: Measuring and Supporting Creativity in Developing Software Requirements"

Dr. Adam Jones

NSF CAREER Award
"CAREER: A Neuro-Ophthalmic Approach to Virtual Reality"

Dr. Max Young

NSF CAREER Award
"CAREER: Make Them Pay! Algorithms for Securing Wireless Systems"

Best Paper Award
"Defending Hash Tables from Subterfuge with Depth Charge"

DEGREE PROGRAMS OFFERED

UNDERGRADUATE

- NEW B.S. in Artificial Intelligence
- B.S. in Computer Science
- B.S. in Cybersecurity
- NEW B.A.S in Cybersecurity
- B.S. in Software Engineering

GRADUATE

- ONLINE M.S. in Computer Science
- ONLINE M.S. in Cybersecurity
- M.S. in Data Science
- ONLINE Ph.D. in Computer Science
- Accelerated B.S./M.S. in Computer Science

AREAS OF RESEARCH

- Artificial Intelligence and Machine Learning
- Graphics, Virtual, and Augmented Reality
- Human-Computer Interaction
- Data Science
- Cybersecurity
- Software Engineering
- High Performance Computing
- Computational Biology
- Computational Science
- Computer Security

Designated National Center of Academic Excellence in Cyber Operations, Cyber Defense, and Cyber Research by National Security Agency.

2023 DEPARTMENTAL STATISTICS

- OVER **150** UNDERGRADUATE DEGRESS AWARDED
- APPROXIMATELY **120** MASTERS AND PH.D STUDENTS
- **21** MASTERS AND PH.D DEGRESS EARNED
- **24 FACULTY** MEMBERS INCLUDING 4 ENDOWED PROFESSORS
- OVER **900** UNDERGRADUATE AND GRADUATE STUDENTS
- **80+** INTERNATIONAL STUDENTS
- **OVER $8 MILLION** IN RESEARCH EXPENDITURES
- **$60K+** IN SCHOLARSHIPS

NEW FACULTY MEMBERS

Dr. Noorbakhsh Amiri Golilarz
Assistant Research Professor

Dr. Vini Chaudhary
Assistant Professor

Dr. Jessie Cossitt
Assistant Teaching Professor

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Mississippi State University Department of Computer Science and Engineering

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MISSOURI S&T™

Computer Science Department

College of Engineering and Computing

Ranked #1 Public University in MO for ROI

- *Ranked #3 among Public Universities for best career placement*
- *Nationally recognized for value & high earning potential by The New York Times*
- *Only public university in Wall Street Journal's Top 10 list of universities on salary impact*

MEET NEW FACULTY

ASSISTANT PROFESSOR: DR. SHUBHAM CHATTERJEE

ASSISTANT PROFESSOR: DR. MIA MOHAMMAD IMRAN

ASSISTANT PROFESSOR: DR. MD ARIFUZZAMAN

CS DEPARTMENT POPULATION

880 students

Research Highlight

Kummer Ignition Grants for Sustainable Educational Transformation

These grants were created to fund new and innovative projects that will lead to strategic transformations in education at S&T. This year's projects focus on creating online asynchronous programs.

A team of computer science faculty were awarded the ignition grant. Members of the team include Dr. Suman Kalyan Maity, assistant professor; Dr. Huiyuan Yang, assistant professor; Dr. Patrick Taylor, associate teaching professor; Jack Manhardt, assistant teaching professor; and Dr. Seung-Jong Jay Park, the department's Kummer Endowed Chair.

Gianforte School of Computing

Montana State University

https://www.cs.montana.edu/

Faculty Opportunities in 2024-2025

- 2 Assistant Professor Positions
- 1 Instructor Position
- More information: https://www.cs.montana.edu/opportunities.html

Highlights

- Construction is underway on Gianforte Hall, a building that will house our School of Computing and have a digital arts presence. The building is projected to open in 2026.
- **Dr. Neda Nazemi** joined as an Assistant Professor in fall 2024.
- **Dr. Mike Wojnowicz** will join as our inaugural Hambly Professor in spring 2025.
- Our research expenditures rose to an all-time high of $3.03M in fiscal year 2024.
- **Dr. Ann Marie Reinhold** helped secure a $24M AFRL contract with BlackSky.
- **Dr. Laura Stanley** helped secure a two-year $300K NSF EAGER grant.
- **Dr. Brittany Terese Fasy** co-authored a best paper at IEEE VIS 2024.
- **Dr. Binhai Zhu** co-authored a best paper at ISBRA 2024.
- **Dr. John Paxton** received the 2023 oSTEM national advisor award.
- **Dr. Clemente Izurieta** received the 2024 NACOE Distinguished Professor award.
- **Dr. Mary Ann Cummings** received the 2024 NACOE Outstanding Career Service award.

Student Numbers

- 563 students in Fall 2024 (includes B.S., M.S. and Ph.D. students)
- 577 students in Fall 2023 (includes B.S., M.S. and Ph.D. students)
- Awarded 5 Ph.D. degrees, 11 M.S. degrees and 109 bachelor's degrees in AY 2023-24.

Dr. Neda Nazemi

Dr. Mike Wojnowicz

Gianforte Hall

NJIT | YING WU COLLEGE OF COMPUTING

Ying Wu College of Computing is honored to welcome **Dean Jamie Payton**, who officially began her tenure on July 1, 2024. She previously served as professor and chair of the Department of Computer and Information Sciences at Temple University. A national leader in initiatives to introduce underrepresented students to computing and STEM, she is a principal investigator and director of STARS Computing Corps Alliance for Broadening Participation in Computing and co-principal investigator and director of broadening participation of the INVITE Institute.

The Ying Wu College of Computing (YWCC) proudly announces four new faculty members for the 2024-2025 academic year:

Data Science

Lingxiao Wang

Informatics

Erin Truesdell

Chelsea Yuan

Lei Zhang

Awards and Recognition

Professor Zhi Wei has been elevated to IEEE Fellow status effective January 1, 2024, in recognition of his significant contributions to knowledge discovery from biological data and in the field of bioinformatics.

Associate Professor Usman Roshan and colleagues from Robert Wood Johnson (RWJ) Medical School and Robust AI have developed an AI based laparoscopic surgery simulator solution, which is among the first generation of AI teachers. The work has been presented at the IEEE International Conference and is expected to be embedded into the RWJ curriculum in 2025.

Assistant Professor Pan Xu's co-authored paper on Promoting External and Internal Equities Under Ex-Ante/Ex-Post Metrics in Online Resource Allocation was one of only 3.5% accepted by the International Conference on Machine Learning (ICML) in the Spotlight category.

Associate Professor Jacob Chakareski and collaborators from University of Massachusetts-Amherst's BONES (Buffer-Occupancy-based Neural-Enhanced Streaming) was one of 10% of accepted papers to be presented at the ACM Sigmetrics conference in Venice, Italy this summer.

2024 Rankings and Recognition

#1 in NJ, **#28** Nationally America's Top Public Colleges – Forbes
#1 in New Jersey for Game Design – Animation Career Review
#4 Best Online Master's in Data Science Degrees - Fortune
Top 25% of U.S. Universities – The Wall Street Journal/ Times Higher Education (#193 of 797)
Top 50 Nationally for Game Design – The Princeton Review
Top 100 National University, Information Systems – Quacquarelli Symonds

Suresh Kumar, senior university lecturer and director of entrepreneurial programs, has been listed on New Jersey's 2024 Innovate 100 list for his work as president of TIE NJ (The Indus Entrepreneur-NJ).

Parth Mehta '19 (Information Technology), founder of Startup Tribes, had his company acquired by the market leader in startup ecosystem building at 26 years of age. He is currently Senior Leader in Product Management at SS&C Intralinks, pioneers of virtual data rooms for mergers and acquisitions.

Senior **Noah Jacobson** won third place at the U.S. Department of Energy's CyberForce Conquer the Hill – Reign Edition. The competition tested skills in networking, web exploitation, Linux, cryptography, problem solving, general cybersecurity knowledge, and more. He was recently accepted to the elite CyberCorps Scholarship for Service (SFS) program through the NJIT Secure Computing Initiative.

NYU | COURANT COMPUTER SCIENCE

Department Hightlights

Yann LeCun was named an ACM Fellow by the Association for Computing Machinery and a 'Great Immigrant' by the Carnegie Corporation.

Subhash Khot has been elected to the National Academy of Sciences.

Ralph Grishman was recognized with the Lifetime Achievement Award by the Association for Computational Linguistics.

Ted Rappaport has been inducted into the IEEE Vehicular Technology Society's Hall of Fame.

Lerrel Pinto was named a Packard Foundation Fellow for Science and Engineering.

Anirudh Sivaraman, Joseph Tassarotti and Lerrel Pinto received NSF CAREER Awards.

Oded Regev was awarded the RSA Conference 2024 Excellence in the Field of Mathematics Award.

Zachary Ferguson received the ACM SIGGRAPH Outstanding Doctoral Dissertation Award for his thesis.

NYU Courant Computer Science

Undergraduate majors: 1100+
Master's students: 560+
PhD students: 130+
Faculty: 70 (54 tenure track)

Visit our website ***cs.nyu.edu***

New Faculty Recruited

Sai Qian Zhang specializes in algorithm and hardware co-design for efficient deep neural network implementation. He completed his PhD at Harvard and joins us from Meta Reality Labs.

Nir Bitansky studies the theory of computation at large and cryptography in particular. He joins us from Tel Aviv University, where he held a faculty position and also completed his PhD.

Eunsol Choi focuses on natural language processing and machine learning in real-world contexts. She received her PhD from University of Washington, worked at Google AI, and joins us from UT Austin.

Sam Westrick specializes in provably efficient implementations of high-level programming languages. He joins us from Carnegie Mellon, where he worked as a researcher after completing his PhD.

Sherry Yang aims to develop machine learning models with internet-scale knowledge to make better-than-human decisions. She received her PhD from UC Berkeley and worked at Google DeepMind.

Romain Lopez works at the intersection of statistics, computation and modeling with a focus on biological applications. He completed his PhD at UC Berkeley and held a postdoctoral position at Stanford.

Gautam Kamath is interested in reliable statistics and machine learning, especially in data privacy and robustness. He received his PhD from MIT and joins us from the University of Waterloo.

Northeastern University
Khoury College of Computer Sciences

CS / FOR EVERYONE

At **Northeastern's Khoury College Of Computer Sciences**, we are resolute that computer science is for everyone, and that everyone should benefit from computer science. As a community, we are driven to use the power of computing to improve all aspects of life for all communities, ensuring equitable access to innovation that empowers and safeguards all people.

Khoury College spans nine Northeastern campuses

Khoury College has grown its global network of campuses with locations in **Boston; Arlington, VA; London; Miami; Oakland, CA; Portland, ME; Silicon Valley; Seattle; Vancouver;** and **online**.

Cooperative education

Cooperative Education (co-op) is a cornerstone of our undergraduate and graduate programs. Khoury College placed **2,456** students in co-ops with **1,053** companies last academic year.

Students by the numbers

4,499 undergraduate students
35% of incoming undergraduate students identify as female or nonbinary
56 combined undergraduate majors across seven colleges
53% of undergraduate students enrolled in combined majors
4,223 master's students
2,042 Align MS students, **53%** identify as female or nonbinary
4 PhD programs - computer science, cybersecurity, personal health informatics, network science
341 PhD Students, **69** incoming in 2024

Faculty by the numbers

215 full-time faculty
105 tenure/tenure-track faculty (**39%** tenure/tenure-track faculty have joint appointments)
69% increase in tenure/tenure-track faculty in seven years
101 teaching faculty (full-time and part-time) outside of Boston
135% increase in teaching faculty in seven years

Research highlights

BEST PAPER AWARDS (2019-2024)
Khoury College faculty and students won best paper/test of time awards at the following conferences, forums, and workshops:
ACL, AISec, ANRW, CCS, CHI, COSN, DSN, EAPLS, EDBT, FPF, FDG, FAST, HRI, IEEE, CNS, ICDM, ISWC, KDD, NDSS, PETS, SecDev, SIGACCESS, SIGCOMM, SIGSOFT, SoSYM, TACAS, UNENIX Security, VEE, WiSec.

CAREER, YOUNG INVESTIGATOR AND SLOAN FELLOWSHIP AWARDS (2019-2024)
The following members were awarded the Sloan Research Fellowship, Young Investigator, ASA, NSF CAREER, or OSA Fellowship:
Christopher Amato, Jonathan Bell, Raymond Fu, Paul Hand, Aanjhan Ranganathan, Saiph Savage, Frank Tip, Alexandra To, Olga Vitek, Christo Wilson.

CONFERENCE GENERAL OR CO-CHAIRS (2019-2024)
Khoury College faculty have been general chair or co-chair for the following conferences:
AAAI, ACM AFT, ACM CI, DSAA, ECOOP, ITC, ICML, IMC, IEEE S&P, ISMB, IVA, KDD, NetSci, OOPSLA.

SIGNIFICANT AWARD
Elizabeth Mynatt elected as a member of the **American Academy of Arts and Sciences**.

Institutes and centers

National Deep Inference Fabric (NDIF), led by David Bau, is a new, NSF-funded, national-scale research computing infrastructure project. It will enable researchers to delve into the mysteries of large-scale AI systems and address a growing gulf between the efficacy of machine learning and scientists' ability to explain it.

The Cybersecurity and Privacy Institute, led by David Choffnes, is dedicated to safeguarding critical technology through research and education in collaboration with industry experts, government agencies, and global academic partners worldwide.

The Center for Inclusive Computing, led by Carla Brodley, was launched in 2019 with a goal of increasing women in computing programs across the country.

The Barnett Institute for Chemical and Biological Analysis, led by Olga Vitek, is a center of excellence in the development and application of technologies for biopharmaceutical characterization, proteomics, and systems biology.

The Institute for Experiential AI, led by Usama Fayyad, solves core research problems centered on building real solutions in real contexts to make reliable and responsible AI that works effectively and cooperatively with humans.

The Network Science Institute (NetSI) at Northeastern University is a multidisciplinary research community that supports innovative research and education in network science. NetSI brings together faculty, researchers, and students from diverse disciplinary backgrounds including physics, computer sciences, political sciences, business, communication, economics, and health sciences.

New faculty at Khoury College 2024

Tenured or tenure-track faculty

Joshua Gancher
Assistant professor
PhD, Cornell University

Wengong Jin
Assistant professor
PhD, MA Institute of Technology

Zhengzhong Jin
Assistant professor
PhD, MA Institute of Technology

Tianshi Li
Assistant professor
PhD, Carnegie Mellon University

Prashant Pandey
Assistant professor
PhD, Stony Brook University

Ziming Zhao
Associate professor
PhD, Arizona State University

Joint tenured or tenure-track faculty

Seth Hutchinson
Professor
Joint with College of Engineering
PhD, Purdue University

Weiyan Shi
Assistant professor
Joint with College of Engineering
PhD, Columbia University

David Stein
Assistant professor
Joint with School of Law
M.Eng, MIT; JD, NYU School of Law

Teaching faculty

Neda Changizi
Clinical instructor
MSc in CS, Simon Fraser University

"Crane" He Chen
Assistant teaching professor
PhD, Johns Hopkins University

Molly Domino
Assistant teaching professor
PhD, Virginia Tech

Sandy Ganzell
Teaching professor
PhD, Rice University

Chris Geeng
Assistant teaching professor
PhD, University of Washington

Hazra Imran
Associate teaching professor
PhD, Jawaharlal Nehru University

Carter Ithier
Clinical instructor
PhD, Northeastern University

Abir Saha
Associate teaching professor
PhD, Northwestern University

Mohit Singhal
Associate teaching professor
PhD, University of Texas - Arlington

Rose Sloan
Associate teaching professor
PhD, Columbia University

Jesse Stern
Assistant teaching professor
PhD, University of Chicago

Maryam Tanha
Associate teaching professor
PhD, University of Victoria

Wendy Truran
Associate teaching professor of technical and professional communications
PhD, University of Illinois Urbana-Champaign

Akshar Varma
Assistant teaching professor
PhD, Northeastern University

Huihui Wang
Teaching professor and director of computing programs
PhD, University of Virginia

Ilmi Yoon
Teaching professor and director of computing programs
PhD, University of Southern California

Deahan Yu
Assistant teaching professor
PhD, University of Michigan

Professors of the practice

Elizabeth (Beth) Hawthorne
Professor of the practice and cybersecurity graduate program director
PhD, Nova Southeastern University

Yifan Hu
Professor of the practice
PhD, Loughborough University

School of Computing and Analytics

nku.edu/sca

New Tenure-Track Faculty

Nazmus Sadat
Assistant Professor
Cybersecurity

Cynthia Thomas
Assistant Professor
Cybersecurity

Andy Xing
Assistant Professor
Information Systems

Current Programs

Undergraduate Majors

- Applied Software Engineering
- Business Information Systems
- Computer Information Technology
- Computer Science
- Cybersecurity
- Data Science
- Health Informatics

Graduate Degree Programs

- Business Informatics
- Computer Science
- Cybersecurity
- Health Informatics

School News

- **A Center of Excellence:** NKU has had the NSA NCAE-C designation since 2015.
- The Bachelor of Science in Business Information Systems and Master of Science in Business Informatics are **accredited by AACSB**.
- **ABET-accredited BS in Data Science program** (the first ABET-accredited DS program in the world) in the School of Computing and Analytics facilitates easy collaboration on cyber data analysis, AI, etc.
- NKU has hosted the **NKY Cybersecurity Symposium for 17 years**, co-organized with NKU Chase College of Law, drawing 400-500 IT and legal professionals annually, with numerous local and national corporate sponsors.
- The **MS in Computer Science** has been relaunched as a one-year degree program that emphasizes practical experience and offers CPT eligibility from day one.

SCA School by the Numbers

Faculty:

- 34 full-time faculty, including 6 Full Professors, 9 Associate Professor, 10 Assistant Professors, 2 Professors of Practice, and 7 Lecturers.

Students:

- Over 1,250 current majors.
- 4 Years average time to degree.
- 75% of students stay in Northern Kentucky/Greater-Cincinnati region after graduation.

By the Numbers

Faculty: 45 tenure track, 16 clinical and faculty of instruction, one senior lecturer, one research faculty member, and 25 affiliated faculty

Enrollment: 10,647 (AY 2023-24)

Undergraduate Students: 880 majors, 117 minors

Graduate Students: 204 MS and 160 PhD

MBAi: 90 students

MSAI: 68 students

PhD in Computer Science and Learning Sciences *(joint with the School of Education and Social Policy)*: 22 students

PhD in Technology and Social Behavior *(joint program in CS and Communication)*: 26 students

Machine Learning and Data Science Minor *(joint with Industrial Engineering and Management Sciences)*: 215 students

New Faculty

Core Tenure-track CS Faculty

Edith Elkind, Ginni Rometty Professor of Computer Science
algorithmic game theory, computational social choice, and artificial intelligence

Jointly Appointed Faculty

Nivedita Arora *(CS + electrical and computer engineering)*
sustainability-first computing systems

Faculty of Instruction

Anjali Agarwal
theory, introductory programming, data structures

Dietrich Geisler
graphics/vision, programming languages, compilers

Yiji Zhang
program analysis, software engineering

Clinical Faculty

Joshua D'Arcy
machine learning, ambient data collection, just-in-time adaptive interventions

Research Faculty

Dmitrii Pasechnik
pure/applied mathematics, mathematical software

Undergraduate Program

Reflecting Northwestern's institutional priorities around data analytics and artificial intelligence, non-CS undergraduate students can engage deeply with the core scientific concepts behind AI technologies through the new minor in artificial intelligence.

Students in the recently expanded Machine Learning and Data Science Minor gain hands-on experience with visual models and techniques used for collecting, cleaning, and analyzing data.

Undergraduate students in computer science have the opportunity to declare an optional major concentration in one of the following sub-fields:

- Artificial Intelligence
- Computer Hardware and Architecture
- Foundations
- Human-Computer Interaction
- Robotics
- Security and Privacy
- Software Engineering and Programming Languages
- Systems

New Research Centers

The Center for Foundation Models and Generative AI led by **Han Liu** aims to drive innovation, enhance collaboration across the Midwest, and ensure that AI serves as a force for positive change.

Brenna Argall and **Elizabeth Gerber** are collaborators with Human AugmentatioN via Dexterity (HAND), a new US NSF Engineering Research Center dedicated to revolutionizing the ability of robots to amplify human labor.

The NSF-Simons AI Institute for the Sky will develop AI tools and accelerate astronomy's data-driven revolution. **Aggelos Katsaggelos** (co-PI), **Emma Alexander**, **Jessica Hullman**, **Han Liu**, **Aravindan Vijayaraghavan**, and **Ermin Wei** will join the multidisciplinary team.

Awards and Honors

The Northwestern CS community is recognized for their accomplishments in research, education, and mentorship.

Emma Alexander participated in the Grainger Foundation Frontiers of Engineering 2024 Symposium.

Nivedita Arora won the 2024 ACM Doctoral Dissertation Award.

Karan Ahuja won the ACM SIGCHI Outstanding Dissertation Award and was named to *Forbes* '30 Under 30 Asia 2024.'

PhD students **Mandi Cai** and **Melissa Chen** were awarded NSF Graduate Research Fellowships.

Andrew Crotty received a Google Research Scholar Program Award.

Nadharm Dhiantravan, **Joel Goh**, **Marko Veljanovski**, and **Garrett Weil** received honorable mentions in the CRA 2023-2024 Outstanding Undergraduate Researcher Award competition.

Elena Fabian ('24) is a member of the inaugural class of Berkeley Innovation Scholars at Berkeley Law.

Nikos Hardavellas was named a Future CRA Leader.

PhD student **Monisola Jayeoba** was awarded an AAUW International Fellowship.

A team including **Manling Li** won an Outstanding Paper Award at ACL 2024.

PhD students **Taylor Olson** and **Lixu Wang** were awarded IBM PhD Fellowships.

Uri Wilensky was elected to the American Academy of Arts and Sciences.

Marcelo Worsley has been named a research fellow with the Jacobs Foundation.

A team led by **Xinyu Xing** and **Yan Chen** is advancing to the final competition of the DARPA and ARPA-H AI Cyber Challenge.

OHIO UNIVERSITY

Russ College of Engineering and Technology

School of Electrical Engineering and Computer Science

ABET-accredited UG programs in Electrical Engineering, Computer Engineering and Computer Science. Ph.D & M.S. in EE & CS. Online M.S. program in Electrical Engineering.

At a Glance

- Research Funding: $4.844M
- Total Enrollment
  Undergraduate: 463
  Master's Students: 108
  Ph.D. Students: 29
  Faculty & Staff: 39

Highlights for 2024

- Two new B.S. program launched: Cybersecurity Engineering and Artificial Intelligence

- $2.5 million improvement to Avionics Engineering Center hangar

- Brady Phelps awarded Goldwater Scholarship

- Justin Murray receives NASA Ohio Space Grant Consortium Graduate Fellowship

Meet our new faculty

Majid Mirzanezhad
Assistant Professor, EECS

Ahmed Oun
Assistant Professor, EECS

Zhewei Wang
Visiting Assistant Professor in AI

NASA awards Ohio University, Reliable Robotics and partners $6 million to advance autonomous aircraft tech and industry standards

Ohio University announced a funding award from NASA to advance autonomous aircraft operations. The project was awarded $6 million through NASA's University Leadership Initiative (ULI) supporting the NASA Aeronautics Research Mission Directorate (ARMD) portfolio. The project team is composed of university and industry partners including: Illinois Institute of Technology, Virginia Polytechnic Institute and State University and its Virginia Tech Transportation Institute, Tufts University, Stanford University, and Veth Research Associates LLC, with Boeing serving as a collaborator.

"NASA's ULI program provides the opportunity for leading universities and top industry partners to leverage their collective expertise to drive advancements in aviation technologies. With a background of over 60 years of experience in the field and unique extensive flight-testing facilities, including an airport, the Ohio University Avionics Engineering Center (AEC) can provide a substantial contribution to this project," said Sabrina Ugazio, principal investigator and assistant professor in Electrical Engineering and Computer Science.

OHIO take Gold and Bronze in the 13th International Society for Computational Biology for Wikipedia Competition

Following a clean sweep in the 2022-2023 competition, two teams of five students each received the first and third place prizes in the 2023-2024 ISCB Wikiepedia Competition. The ISCB's stated mission is to further scientific understanding of living systems through computation, and that mission requires high quality scientific communication.

Running from September to May, the compeittion hosts Global and non-English tracks to contribute to the worldwide appreciate of Bioinformatics. The top three teams each receive a cash prize and a one year membership to the ISCB. The winning articles were "Imaging Informatics" and "Orphan Gene".

Russ College of Engineering and Technology to launch new NSF funded Supercomputer Cluster in 2024

The Russ College of Enginering and Technology will launch a new Supercomputer Cluster in 2024, funded by the NSF at nearly $600,000. Lead Principal Investigator Sumit Sharma solicited the NSF for funds with four EECS faculty serving as Co-Investigators. Prof. Chang Liu's research projects include using Machine Learning and National language Processing to improve healthcare. Assistant Prof. Chad Mourning will investigate novel image based visibility and ceilometry estimation techniques to enable Advanced Aerial Mobility operations. Stuckey Prof. Lonnie Welch efforts include construction of 3D genome spatial data atlasas in conjunction with fellow members of the National Institutes of Health 4D Nucleome Consortium. Prof. Wojciech Jadwisienczak will leverage the cluster to support development of novel deep ultra-violet emitting devices.

ASCENT summer STEM internship: Building STEM curiosity among local Appalachian children

STEM interns were connected to a variety of local camps, workshops and youth programs to deliver STEM activities to spark youth curiosity in STEM fields. The internship and provided interns with the background knowledge and the tools needed to deliver the programming to regional youth. After the initial week, the nine interns crafted their own STEM activities referencing a set of evidence-based curricula and created their own lesson outlines that included learning objectives and outcomes.

Student success stories

- Choose Ohio First Scholarship for Computer Science renewed through 2027. Apply today!

- OHIO Blossomhack goes international with our first Canadian competitor from the University of Waterloo

- Computer Science students found new Cybersecurity Club

Penn State Computer Science and Engineering

HIGHLIGHTS

"Exploring AI with Computer Science and Minecraft" summer camp

Honors and Awards:

Vijay Narayanan, associate dean for innovation and A. Robert Noll Chair of Electrical Engineering and Computer Science, was named a Penn State Evan Pugh University Professor and an American Association for the Advancement of Science Fellow

Gang Tan, professor of computer science and engineering, received Programming Language Design and Implementation Distinguished Paper Awards and serves as the led on a multi-institution project funded by the Defense Advanced Research Project Agency to identify cognitive threats in mixed-reality systems

Anand Sivasubramaniam, distinguished professor of computer science and engineering, was named the program chair for the 2025 IEEE International Symposium on High-Performance Computer Architecture

Debarati Das, assistant professor of computer science and engineering, received a National Science Foundation Early Career Development Award

Rui Zhang, assistant professor of computer science, received a National Science Foundational Early Career Development Award

Nittany AI Alliance Challenge top three final phase winners led by computer science and engineering students

Institutes / Labs / Special Projects:

- Deception and Learning in a Contested Multidomain Environment, U.S. Army Combat Capabilities Development Command
- Verified Probabilistic Cognitive Reasoning for Tactical Mixed Reality Systems, DARPA Center
- Department of Energy Center for 3D Ferroelectric Microelectronics
- Center for Artificial Intelligence Foundations and Engineered Systems
- Center for Machine Learning and Applications
- Center for Computational Biology and Bioinformatics
- Institute of Networking and Security Research
- Computer Systems Lab
- High Performance Computing Lab
- Laboratory for Perception, Action, and Cognition
- Mobile Computing and Networking Lab
- Microsystems Design Lab
- Natural Language Processing Lab
- Scalable Computing Lab

Department by the Numbers:

2024 *U.S. News World & Report* Rankings:

Computer Engineering		Computer Science	
#25	#26	#40	#26
UNDERGRADUATE	GRADUATE	UNDERGRADUATE	GRADUATE

$10.9M Externally Funded Research Expenditures (2022-23)

996 Upper-Division Undergraduate Students

65 Total Faculty

204 Ph.D. Students

159 M.S. + M.Eng. Students

New Faculty

Krishna Kambhampaty

Arslan Khan

Yana Safonova

Irish Singh

Pei Wu

PennState College of Engineering

PennState
College of Information Sciences and Technology

ist.psu.edu
@ISTatPennState

RECOGNITION AND HIGHLIGHTS

» **Betsy Campbell**, associate teaching professor, received a TLT Faculty Engagement Award as part of the Penn State University Libraries' Teaching and Learning Technologies program.

» **Chris Gamrat**, assistant teaching professor, was named to Penn State's Teaching and Learning Technologies Faculty Advisory Committee.

» **Hong Hu**, assistant professor, received an NSF CAREER Award to evaluate practical defense mechanisms against cyberattacks.

» **Sharon Huang** is the new holder of the David Reese Professorship of Information Sciences and Technology.

» **Yubo Kou**, assistant professor, was awarded the Haile Family Early Career Professorship.

» **Priya Kumar**, assistant professor, was honored with a PNC Career Development professorship. **Kumar** was also named to the Center for Democracy and Technology fellows program.

» **Peng Liu** was reappointed as Raymond G. Tronzo, MD Professor of Cybersecurity.

» **Justin Silverman**, assistant professor, is the recipient of the Raymond and Diana Tronzo Medical Informatics Endowment.

» **Shomir Wilson**, associate professor, was selected by the Computing Research Association (CRA) to participate in the new Future CRA Leaders Program. **Wilson** was also selected for the Penn State Emerging Academic Leaders program for fall.

» **Aiping Xiong**, received an NSF CAREER Award to study risks V2X attacks may pose to drivers' situation awareness.

FEATURED RESEARCH

» **AI could lead to inconsistent outcomes in home surveillance**

» **Children's visual experience may hold key to better computer vision training**

» **Improving efficiency, reliability of AI medical summarization tools**

» **The increasing difficulty of detecting AI- versus human-generated text**

» **Predictive model detects potential extremist propaganda on social media**

» **Some TikTok users acknowledge the technology underlying personalized content online but can't deny sometimes feeling that a higher power is involved**

» **True: Fact checkers tend to agree on validity of news claims**

» **Wall Street meets Reddit: What are the upsides and risks of social investing?**

IST research was showcased at the Association of Computing Machinery Conference on Human Factors in Computer System (ACM CHI) with 15 full papers and seven late-breaking works, the most ever for the college.

EXPERTS IN THE NEWS

» **"Why killer AI is such an alluring horror villain"** (The Washington Post) **Dana Calacci**, assistant professor

» **"Artists are taking things into their own hands to protect their work from generative AI"** (Associated Press) **Jinghui Chen**, assistant professor

» **"Ask an expert: Democracy in the internet age"** (Penn State News) **Kelley Cotter**, assistant professor

» **"Pennsylvania first state to launch ChatGPT enterprise program for government"** (WENY News) **Vasant Honavar**, professor

» **"Ripple effect: Local agencies ramp up security after state, national cyberattacks on water supplies"** (Altoona Mirror) **David Hozza**, assistant teaching professor

» **"As the internet gets scarier, more parents keep their kids' photos offline"** (The Washington Post) **Priya Kumar**, PNC Career Development Professor

» **"AI performance enhanced with human development psychology"** (Psychology Today) **James Z. Wang**, distinguished professor

» **"How we can make AI less biased against disabled people?"** (Fast Company) **Shomir Wilson**, associate professor

BY THE NUMBERS

ENROLLMENT

1,935 B.S.

118 M.S.

175 Ph.D.

1,127 Online

FACULTY AND RESEARCH

$65M New Funding (FY23–24)

30 New Grants (FY23–24)

78 Full-Time Faculty

41 Tenure/Tenure-Track

NEW FACULTY HIRES

TENURE/TENURE-TRACK

Dana Calacci
Assistant Professor
Data Sciences and Artificial Intelligence
Ph.D., MIT

Minhao Cheng
Assistant Professor
Privacy and Security
Ph.D., UCLA

Tanusree Sharma
Assistant Professor
Privacy and Security
Ph.D., University of Illinois Urbana-Champaign

TEACHING

Kathleen Moore
Associate Teaching Professor
Privacy and Security
Ph.D., Penn State

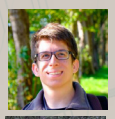
Dhananjay Singh
Teaching Professor
Human-Computer Interaction
Ph.D., Dongseo University

Dongyan Zhang
Lecturer
Privacy and Security
M.S., National University of Singapore
M.S., Penn State

PURDUE UNIVERSITY | Department of Computer Science

NEW FACULTY 2023-2024

ASSISTANT PROFESSORS



JOSEPH CAMPBELL
PhD, Arizona State University

AARUSHI GOEL
PhD, John Hopkins University

ZAK KINGSTON
PhD, Rice University

XUPENG MIAO
PhD, Peking University

ASST. TEACHING FACULTY

ABULHAIR SAPAROV
PhD, Carnegie Melon University

MICHAEL BORKOWSKI
PhD, University of California San Diego

CHRIS MAY
PhD, Purdue University

MARY ANNE SMART
PhD, University of California San Diego

87 FACULTY MEMBERS

14 NEW FACULTY HIRED IN 2024

DEGREES AWARDED
2020-2021
534 BS | 119 MS | 40 PhD

PURDUE CS RANKINGS

US NEWS

#16
OVERALL UNDERGRAD

#19
OVERALL GRADUATE

#6
CYBERSECURITY

#10
SOFTWARE ENG

#13
SYSTEMS

#20
ARTIFICIAL INTELLIGENCE

CS RANKINGS.ORG

#13
OVERALL

AWARDS AND PROMOTIONS

6 FACULTY RECEIVE CAREER AWARDS
Professors Anuran Makur, Muhammad Shahbaz, Ming Yin, Tianyi Zhang, Jianguo Wang and Yexiang Xue received NSF CAREER AWARDS in 2024.

ELISA BERTINO
Received the inaugural Elena Lucrezia Piscopia Award // Re-elected as Vice President of ACM

PAUL VALIANT
Promoted to Associate Professor and awarded tenure

GENE SPAFFORD
Chosen to chair external board for $45M Sandia Labs Digital Assurance Campaign

CHRISTINA GARMAN
Wins Test-of-Time Award at IEEE Symposium on Security and Privacy

LIN TAN
Named ELATES Fellow

MOHAMMADKAZEM TARAM
Awarded IEEE Micro Top Picks

ALEX POTHEN
Named 2024 AMS Fellow

RAJIV KHANNA & VASSILIS ZIKAS
Named AnalytiXIN Fellows

PETROS DRINEAS
Named Society for Industrial and Applied Mathematics Fellow

BERKAY CELIK
Earned Amazon Research Award

$20 MILLION
RESEARCH EXPENDITURES
FY2024

3 UNDERGRADUATE DEGREES
Computer Science | Data Science | Artificial Intelligence

EXCELLENCE AT SCALE
517 students at our new Indianapolis campus
120% Increase growth in student population over 10 years (2014-2024)
2,615 CS Majors (9 Tracks)
227 DS Majors (program began 2017)
142 AI Majors (program began in 2023)

WOMEN IN THE PROGRAM
Undergraduate 2021-2022 – 23%
Graduate 2021-2022 - 19%

GRADUATE STUDENTS
1093 MS and PhD Students

cs.purdue.edu
Follow @PurdueCS

2200 169th Street
Hammond, IN 46323
(219) 989-2400

PURDUE UNIVERSITY NORTHWEST

College of Engineering and Sciences

Department of Computer Science

where passion meets theoretical application

Computer Science Department Initiatives

- Recipient of the DEI Grant of Indiana Academy of Sciences, 2024.
- Published on BPCnet Portal for departmental BPC plan.
- Active STARS Computing Corps Alliance Member.
- A Higher Ed Alliance Member of National Center for Women & Information Technology (NCWIT).

Computer Science Research Highlights

- Research team led by Wei David Dai PhD, Assistant Professor of CS, Director of AI Software Lab.
- Developed an artificial intelligence Gunshot Detection System with 99.99% and 100% accuracy for 1st and 2nd[d] gunshot, respectively.
- Designed as an affordable solution as the cost of this AI Gunshot Detection System is significantly less .

Degrees Offered

https://www.pnw.edu/computer-science/

Undergraduate

- BS Computer Science
- BS Computer Science with Artificial Intelligence Concentration
- BS / MS Combined Program
- Computer Science – Minor

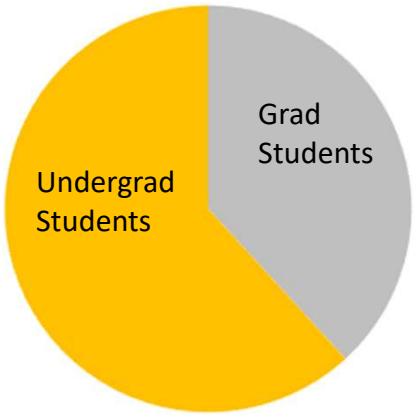
Shuhui Grace Yang, PhD
Department Chair, CS

Graduate

- MS Computer Science
- MS Computer Science with Artificial Intelligence Concentration*
- MS Computer Science with Data Science Concentration*
- MS Computer Science with Software Engineering Concentration*

*pending approval

PNW CS Student Enrollment



Rensselaer Polytechnic Institute
Computer Science Department

https://compsci.rpi.edu

Quick Facts

LOCATION

The 275-acre Rensselaer campus is located on a hill in a beautiful park-like setting, with a striking combination of traditional ivy-covered buildings and modern facilities. The campus overlooks historic downtown Troy, New York, which is located on the Hudson River.

FACULTY

- 25 Tenure Track Faculty
- 10 Teaching Faculty
- 3 ACM Fellows
- 4 IEEE Fellows
- 4 AAAS Fellows
- 2 AAAI Fellows
- 9 NSF CAREER Award winners

FUTURE OF COMPUTING INSTITUTE

The Future of Computing Institute brings together engineers, scientists, business leaders, and humanities experts to collaborate on research addressing challenges facing national and global security including energy, water, and food; climate; human health; and economy and prosperity. New computing paradigms, infrastructure, languages, and software services are developed to define the next generation of composable internet technologies, with special attention to the potential ethical, policy, economic, and social impacts.

For general inquiries, information, or questions, contact:

Tracy Hoffman
Graduate Program Administrator
(518) 276-8419
morizt@rpi.edu

https://www.cs.rpi.edu

Students in Computer Science are exposed to rich and varied areas such as AI, Machine Learning, Data Mining, Network Science, Semantic Web, Computer Vision, Graphics, High Performance Computing, Distributed Computing, Programming Languages, Information Trust, Privacy, Safe Autonomy, Blockchains, Computational Economics, Bioinformatics, and so on.

DEGREES OFFERED

Computer Science B.S., M.S., Ph.D.

1,300+ B.S., 100+ M.S., and 50+ Ph.D. degrees awarded over the last four years

AREAS OF GRADUATE RESEARCH

- Algorithms and theory
- Artificial intelligence and Machine Learning
- Autonomous systems
- Bioinformatics
- Computational finance
- Computer vision; biomedical image analysis
- Concurrent programming and cloud computing
- Data mining
- Decentralized systems (Blockchains)
- Distributed and large-scale simulation
- Distributed algorithms and systems
- Economics and computation
- Edge and cloud-computing, and IoT
- Graphics and visualization
- Information trust
- Knowledge graphs and ontologies
- Network science
- Privacy and security
- Program analysis and verification
- Quantum computing
- Semantic web and web science

AFFILIATED RESEARCH CENTERS

- Center for Computational Innovation
- Rensselaer-IBM Artificial Intelligence Research Collaboration
- Institute for Data Exploration and Applications
- Data Science Research Center
- Network Science and Technology Center
- Tetherless World Constellation

NEW FACULTY HIRES

Zhiding Liang
Assistant Professor
PhD, Univ. of Notre Dame

Quantum Computing, Quantum Architecture and Design Automation, Quantum Machine Learning

Dan DiTursi
Senior Lecturer
PhD, University at Albany

Theory of Computation, Algorithms / Graph Theory, Machine Learning, Cryptography

Mark Gilder
Senior Lecturer
PhD, RPI

High Performance Computing, Cybersecurity, Virtualization/Cloud Computing

WORLD's FIRST IBM QUANTUM SYSTEM ONE ON A UNIVERSITY CAMPUS

Building on RPI's bicentennial celebration of 200 years of firsts, the 127-qubit IBM Quantum System One is significantly enhancing the educational and research opportunities for the university, as well as with other academic institutions and organizations across New York . Faculty, researchers, students, and collaborators accessing the system are advancing quantum computing research, including the search for quantum algorithms that could lead to quantum advantage, while also actively building the next generation of the quantum workforce.

RIT

Golisano College of Computing and Information Sciences

Department of Computer Science

In **RIT's computer science degree** students specialize in areas such as artificial intelligence, computer graphics, computing theory, networking, security, robotics, parallel computation, data mining, computer architecture, and systems software.

318
Degrees Awarded in 2022-2023

$102k
Average First Year Salary of Graduates

98%
Average Employment Rate

193
Peer-reviewed Publications in 2023-2024

#5
in Co-ops via US News and World Report

#42
in Best Value Schools US News and World Report

$3M
in research funding since 2018

Community Achievements

CS Professor Dr. Leon Reznik is leading the RIT arm on a new $1.5M NSF funded research project titled "ETAUS: Smarter Microbial Observatories for Realtime ExperimentS (SMORES)" to be performed in collaboration with biologists from Harvard, AI/ML experts from RIT, engineers from Florida International University & marine scientists from University of Georgia. The RIT team will develop AI/ML based tools that should help optimize planning & conducting underwater research.

Allahsera Auguste Tapo (CS PhD candidate) earned a Google PhD Fellowship in 2023 for his research titled ""Natural language processing crowdsourcing for predominantly oral languages." He aims to develop an AI-powered speech-to-speech translation tool that helps people communicate in their own languages.

RUTGERS
NEW BRUNSWICK

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING PROGRAM

ECE BY THE NUMBERS

124 PHD
151 MS
884 UNDERGRAD

36 FACULTY MEMBERS

STUDENT BODY

18% FEMALE

65% GRADUATE INTERNATIONAL STUDENTS

POST-GRADUATE EMPLOYMENT

Meta
Marvel
Barclays
CellGain
AT&T
IBM
Procter & Gamble
Oracle
Revature
& more!

U.S.News & WORLD REPORT

#15

Public National University

DEGREE OPTIONS

PHD

MS
Thesis
Non-Thesis

BS/MS

CERTIFICATE

SOCIALLY COGNIZANT ROBOTICS
through SOCRATES program

CYBERSECURITY
MACHINE LEARNING
can be taken in tandem with a Master's or PhD program

DEPARTMENT HIGHLIGHTS

- NEW Machine Learning Concentration For MS Students
- Three New Faculty Members including Dr. Aggelos Bletsas, Dr. Minning Zhu, and Dr. Bokyung Kim
- Colloqium Speaker Series hosted each semester to expose graduate students to emerging research innovations

MACHINE LEARNING

PhD, MS, and Certificate only

Data driven decision making is integral to the world's most influential industries. Our mission is to enable students to real-world engineering problems.

$12M NEW RESEARCH GRANTS

RESEARCH HIGHLIGHTS

- NSF Grant for FMRG: Cyber: Manufacturing USA: NextG-Enabled Manufacturing of the Future (NextGEM)
- ARL Award for Dynamic, Adaptive, and Swift AI at the Resource-Constrained Tactical Networks
- NSF Grant for Partnerships for Innovation - Technology Translation
- NSF National Research Traineeship (NRT) Grant for Socially Cognizant Robotics

FACULTY AND STUDENT HIGHLIGHTS

- Three ECE Undergraduate Students traveled to Indonesia to present paper at 2024 IEEE International Symposium on Consumer Technology
- **Dr. Yingying (Jennifer) Chen** named Top Professor of the Year at the International Association of Top Professionals
- **Dr. Bo Yuan** awarded Presidential Fellowship of Scholarly Excellence by the Rutgers Office of the Executive Vice President
- A team of **WINLAB** researchers received NSF Grant for Enabling Next Generation Terrestrial Wireless Network Coexistence with Active and Passive Satellite Systems
- PhD student **Faith Johnson** wins Chancellor's Leadership Award for her comtributions to the Rutgers Community

2024 UNDERGRAD CAPSTONE

- 52 teams (218 students)
- 50 judges from industry and academia selected top 15 teams
- Best in Research, Best in Impact, Best in Commercialization

APPLY NOW
for FALL 2025!

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Stony Brook University

Department of Computer Science

www.cs.stonybrook.edu

New Faculty Hires

- Tuhin Chakraborty – NLP, HCI
- Paola Cascante-Bonilla – Computer Vision, NLP, Embodied AI
- Daniel Benz – Computer Architecture, CS Education

Faculty Honors

- NSF CAREER Award – Dominik Kempa
- IEEE Fellow – Klaus Mueller
- N2Women Rising Star – Shubham Jain
- SMA Pioneer Award – Hong Qin

By the Numbers Fall 2024

1400+	Undergraduates
400+	Masters students
250+	PhD students
50	Tenure stream faculty
13	Teaching faculty
$15M+	Annual research spending

Three Test-of-Time Awards in 2024

- VLDB Test of Time Award – Fusheng Wang and Joel Saltz
- KDD Test of Time Award – Steven Skiena, Rami al-Rfou and Bryan Perozzi
- Supercomputing Test of Time Award – Arie Kaufman, Suzanne Yoakum-Stover, Zhe Fan and Feng Qiu

Rankings

- Stony Brook Computer Science ranks #23 overall in CSrankings.org with two individual subfields, *computer vision* and *visualization*, ranked within the top-10 and five other subfields – *Security, Mobile Computing, Measurement & Performance Analysis, Web & IR* and *Logic & Verification* ranked within top-20.
- US News and World Report ranks the graduate program top #46 in the country.

New Initiatives

- A new graduate program in Data Science started in Fall ’23, and a new undergraduate program in Data Science is slated to debut in Fall ’25. Two departments jointly offer these programs: Computer Science and Applied Math & Statistics.
- Stony Brook University launched the *AI Innovation Institute (AI3)* in 2024, which will expand and consolidate its current AI initiatives. As a university-wide enterprise, AI3 will accelerate, coordinate and organize AI innovation and education across Stony Brook.

Department of

Computer & Information Sciences

Temple CIS is committed to exploring new opportunities in training students and expanding research strengths in data science, large-scale networked computing and machine learning to support future visions of computing. Internationally-recognized faculty, staff and more than 1,500 undergraduate and graduate students are fueling the department's rise towards the next level of excellence in academic programs and research endeavors.

Core Research Areas

Algorithms & Complexity
Artificial Intelligence
Bioinformatics
Computer Architecture
Computer Networks
Computer Science Education
Computer Security
Computer Vision
Data Mining
Data Science
Distributed Computing
Economics & Computation
Embedded & Real-time Systems
High-performance Computing
Human Computer Interaction
Information Retrieval
Mobile and Ubiquitous Computing
Natural Language and Processing
Quantum Computing
Robotics
Security and Privacy
Software Engineering

Academic Programs

Computer Science BA, BS
Information Science and Technology BA, BS
Data Science BS
Cybersecurity, BS
Mathematics and Computer Science BS
Mathematics and Computer Science with Teaching BS
Physics and Computer Science BS
Computational Data Science MS
Computer Science MS
Information Science and Technology MS
Cyber Defense and Information Assurance PSM
Bioinformatics PhD
Computer and Information Science PhD

BPC Initiatives

- STARS Computing Corps Alliance for Broadening Participation in Computing
- OwlHacks
- BRAID Affiliate
- NCWIT Learning Circles Member
- Sponsored student/faculty participation in Grace Hopper Celebration of Women in Computing
- Sponsored student/faculty participation in Tapia Celebration of Diversity in Computing

- Learn more about Temple CIS

Research Centers

- Center for Data Analytics and Biomedical Informatics
- Center for Hybrid Intelligence
- Center for Networked Computing

Recent Funded Research

Chiu Tan, DREAM-KG: Develop Dynamic, REsponsive, Adaptive, and Multifaceted Knowledge Graphs to address homelessness with Explainable AI (2023-26), NSF; Enhancing Cybersecurity Training for Next Generation Healthcare Professionals (2023-26), NSF

Eduard Dragut & Longin Latecki, Knowledge Graph to Support Evaluation and Development of Climate Models, (2023-26), NSF

Hongchang Gao, CAREER: Decentralized Federated Compositional Learning: Algorithm and Theory (2024-29), NSF; Foundations for Trustworthy Decentralized Federated Learning (2024-27), NSF

Xubin He, ProDM: Developing A Unified Progressive Data Management Library for Exascale Computational Science (2023-26) NSF

Longin Latecki, Shape Configuration Learning and Its Applications (2024-27), NSF

Mindy Shi, Identifying and Characterizing the Full Spectrum of Haplotype-resolved Structural Variation in Human Genomes (2024-28), NIH and Jackson Lab

Yan Wang, Securing Public Safety with WiFi-based In-baggage Suspicious Object Detection (2024-28), NSF; Education on Securing AI System under Adversarial Machine Learning Attacks (2024-27), NSF; Efficient and Robust Multi-model Data Analytics for Edge Computing (2023-26), NSF

Yu Wang & Chiu Tan, AI4EDU: Cloud Infrastructure-Enabled Training for AI in Educational Research and Assessment (2024-28), NSF

Computer Science
TENNESSEE TECH

INCREASED FACULTY

PRANTAR GHOSH, PH.D.
ASSISTANT PROFESSOR
Dartmouth College, 2022

JESSE ROBERTS, PH.D.
ASSISTANT PROFESSOR
Vanderbilt University, 2024

MOHAMED FADUL, PH.D.
INSTRUCTOR
University of Tennessee at Chattanooga, 2022

CRISTINA RADIAN, MS
INSTRUCTOR
California State University East Bay, 2011

BRANDON VANDERGRIFF, MS
INSTRUCTOR
Tennessee Tech University, 2023

BY THE NUMBERS

- Among Tennessee's **top three computer science programs**, having climbed 56 spots in *U.S. News & World Report* 2025 rankings.
- Became **top producer of computer science graduates** among Tennessee public universities: *2022-2023 enrollment data, Tennessee Tech University Office of Institutional Assessment, Research & Effectiveness.*
- Ascended to **Tennessee's largest undergraduate computer science program** in 2023.*
- Increased undergraduate majors to **744** (up 17% since 2022).*
- Achieved **all-time high for first-time freshmen** enrollment, fall 2024.*
- Increased first-time freshmen retention to **86.1%** for fall 2023 cohort.*
- Increased Data Science & Artificial Intelligence concentration enrollment to **132** (up 28% since fall 2023).*
- **Doubled** number of full-time faculty since FY2017.

**Institutional Research IPEDS Data*

FISCAL YEAR 2024 RESEARCH

- **Awards:** $3.25M and **Activations:** $4M: Saw 524% increase in grant activations since FY2016.
- **Awarded $3M NSF research grant:** Tech faculty training graduate students on convergence of energy, artificial intelligence and cybersecurity disciplines.
- **Doubled published research:** Saw 134% increase since FY2017.
- **Stanford Top 2% Researchers:** Maanak Gupta, Ph.D., and Muhammad Ismail, Ph.D., recognized two years in a row.

CENTER LEADERSHIP

Computer science professors lead university centers:

CEROC: Cybersecurity Education, Research and Outreach Center – Muhammad Ismail, Ph.D.

MInDS: Machine Intelligence and Data Science Center – Doug Talbert, Ph.D., and William Eberle, Ph.D.

ASCEND: Advanced Scalable Computing, Extreme Networks and Data Center – Anthony Skjellum, Ph.D.

STUDENT SUCCESS

InfoSec CTF: Placed 1st and 4th in 2024 capture the flag cybersecurity competition in Nashville, marking second consecutive year claiming a first-place finish.

CCDC: Placed 2nd in 2024 Collegiate Cyber Defense Competition qualifier and 4th in regionals at Kennedy Space Center.

CyberForce: Placed 2nd in 2023 Department of Energy competition, St. Charles, III.

VEX U Robotics World Championship: Autonomous Robotics Club placed 11th out of 60 teams in 2024 competition in Dallas.

SFS: Tech's CyberCorps Scholarship for Service program recognized among nation's top eight by cumulative new enrollment, 2016-2023.

TEXAS STATE
COMPUTER SCIENCE

New Tenure-Track Faculty

Dr. Tsz-Chiu Au: Ph.D. University of Maryland, College Park; Multiagent systems, multirobot systems, and intelligent transportation systems.

Dr. Veronica Perez-Rosas: Ph.D. University of North Texas; Natural language processing, computational linguistics, and machine learning.

Dr. Isayas Adhanom: Ph.D. University of Nevada, Reno; Artificial Intelligence, Human-Computer Interaction, and Cognitive Neuroscience.

Dr. Shibbir Ahmed: Ph.D. Iowa State University; Software Engineering, Artificial Intelligence, and Data Science, focusing on trustworthy AI systems.

Award Highlights

>Dr. Oleg Komogortsev was awarded the prestegious Denise M. Trauth Endowed Presidential Research Professorship in recognition of his over 25 years of research in eye-tracking technology.

>Dr. Apan Qasem receieved $2.64 million in grant funding from the National Science Foundation to support the STEM-CLEAR: Creating Contextualized Learning Pathways across Academic and Cultural Boundaries project.

>Dr. Martin Burtscher receieved $272,992 in grant funding from the National Science Foundation for the research project titled “Collaborative Research: SHF: Medium: SCIOPT: Toward Certifiable Compression-Aware SCiML Systems.”

Organizational News

Construction has begun on a new 168,000-square-foot, eight-story, $137 million academic building designed to foster innovation and collaboration in STEM disciplines. The state-of-the-art facility will house the Department of Computer Science and will provide teaching space, class labs, departmental offices and research labs. Opening is set for Fall 2026.

Numbers

2,044 Undergraduate Students	**171** Master’s Students
63 Ph.D. Students	**24** Tenured/Tenure-Track Faculty

Expanding Horizons

>Texas State University and Collin College have partnered on a new guaranteed transfer program to provide a clear path to both an associate and bachelor’s degree for students pursuing a B.S. in Computer Science.

>Texas State University and Elisia Education Hub have partnered to open a new TXST campus in the Mexican city of Santiago de Querétaro starting in Fall of 2025. The B.S in Computer Science degree will be fully accredited in the U.S. and Mexico.

TEXAS TECH™

DEPARTMENT OF
COMPUTER SCIENCE
www.cs.ttu.edu

Recent Faculty Hire

Dr. Song Liao
Assistant Professor
Ph.D., Computer Science
Clemson University (2024)
IoT Security/Privacy, Data Science

Dr. Ziwen Pan
Assistant Professor
Ph.D., Electrical & Computer Engineering
University of Arizona (2022)
Quantum Information

Dr. Stas Tiomkin
Assistant Professor
Ph.D., Computer Science & Engineering
Hebrew University (2019)
Artificial Intelligence and R3 Learning
(Reinforcement, Representation, Robot)

Dr. Zihao Zhan
Assistant Professor
Ph.D., Electrical Engineering
Vanderbilt University (2021)
System Security, Hardware Security

Dr. Maaz Amjad
Assistant Professor of Practice
Ph.D., Computer Science
Instituto Politecnico Nacional (2022)
Artificial Intelligence & Natural Language Processing

Dr. Scott Franklin
Associate Professor of Practice
Ph.D., Mathematics
Texas Tech University (2005)
Physics Informed Neural Nets, Computer Vision, Computer Science Education

Department Highlights

The Computer Science Department at Texas Tech University has 1,042 undergraduate students, including 451 major and 591 foundational students, and 564 graduate students, including 481 Master and 83 Ph.D. students, in Fall 2024. The department has 27 faculty members, including 20 tenured/tenure-track faculty, 3 full-time teaching faculty, and 4 part-time instructors. The Department offers an ABET-accredited Bachelor of Science degree in Computer Science, two Master of Science and one Doctor of Philosophy (PhD) degrees. The department received around $8 million-dollar external funding in FY 2024, mostly from National Science Foundation (NSF).

Degrees Offered

ABET

- Bachelor of Science in CS
- Master of Science in CS
- Master of Science in Software & Security Engineering
- Doctor of Philosophy (PhD) in CS
- Certificate in Software Engineering
- Certificate in Security

Research Highlights


Dr. Yuanlin Zhang and Dr. Victor Sheng received $1M Department of Education grant for their research on AI across the curriculum for virtual schools. The project aims to increase the number of high-need students having access to and using AI in math program and increase high-need students' AI literacy and AI self-efficacy.





Dr. Yong Chen, Dr. Tommy Dang, Dr. Yu Zhuang, and Dr. Susan Mengel received a National Science Foundation (NSF) grant to carry out a project titled "REPACSS: Empowering Scientific Discovery through Renewable Energy Powered Advanced Computing Systems and Services" with on-campus collaborators from High Performance Computing Center and GLEAMM. They will build a renewable energy powered cluster and investigate weather- and carbon-aware workload scheduling, migration, and checkpoint/restore methods.

Tier One Research University

Carnegie Classification of Very High Research Activity (R1) University

Texas Tech secured more than $83 million in federal awards and more than $122 million in total research awards in FY 2024. The University's federal research expenditures total more than $63 million and total research expenditures reached more than $255 million.

HSI Hispanic Serving Institution

Texas Tech University offers a comprehensive series of programs, services, initiatives, and organizations to underrepresented students, students of color, and first-generation students.

Other Highlights

Accelerating Impact through Partnerships

NSF CAC Cloud and Autonomic Computing Center
A U.S. National Science Foundation Industry/University Cooperative Research Center

National Science Foundation Phase-II Industry-University Cooperative Research Center (IUCRC) on Cloud and Autonomic Computing conducts fundamental research and development in collaboration with University of Arizona and industry and government members, including the National Security Agency, Los Alamos National Laboratory, Dell EMC, Lubbock County, Naval Information Warfare Center, Department of Homeland Security, Blackfur, Legendary, and Defense Information Systems Agency.

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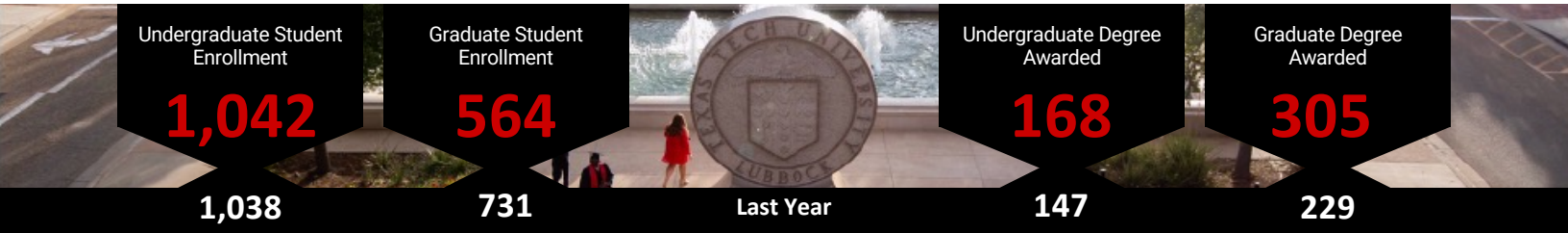

Computer Science and Engineering

The Ohio State University Department of Computer Science and Engineering (CSE) is a national leader in computing education and research. Founded in 1968, the department is consistently ranked among the top programs worldwide and provides a rigorous, advanced learning environment for students with diverse career goals in science, engineering and applications. The scope of our research and education covers foundations and advancements of both computer software and hardware. CSE faculty, students and research fellows make impactful innovations and contributions to advance computing technologies and applications.

Rankings

Ohio State has the top-ranked CSE department among Ohio universities, according to *U.S. News and World Report*. In the 2025 issue, Ohio State's computer science graduate program ranks 27th out of 210 programs nationwide, while the computer engineering graduate program ranks 24th out of 157 programs in the nation.

Academics

- BS in Computer Science and Engineering*
- BS in Computer and Information Science
- BS in Data Analytics (via College of Arts & Sciences)
- BA in Computer and Information Science
- MS in Computer Science and Engineering
- PhD in Computer Science and Engineering

**Accredited by the Engineering Accreditation Commission of ABET, under the General Criteria and the Program Criteria for Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs. Accredited by the Computing Accreditation Commission of ABET, under the General Criteria and the Program Criteria for Computer Science and Similarly Named Computing Programs.*

Fall 2024 Enrollment

Undergraduate students	3,815
Master's students	175
Doctorate students	263
TOTAL	4,253

Degrees Conferred 2023-2024

Bachelor's	597
Master's	72
Doctorate	23

Research

The department's research areas comprehensively cover both core and foundational computer science and engineering, and interdisciplinary fields. These include algorithms and theory, artificial intelligence, computational biology and bioinformatics, computer architecture, computer graphics, data management and analytics, high performance computing, networking and distributed systems, software engineering and programming languages, social network analytics and software systems. In fiscal year 2024, the department's research was supported by nearly $19 million in externally sponsored research funding.

Ohio State is home to two $20 million National Science Foundation artificial intelligence institutes, a $15 million NSF imageomics institute, and a cyber security and digital trust institute.

Faculty

- 54 tenure-track faculty, 9 professors of practice and 24 full-time lecturers
- 4 ACM Fellows, 12 IEEE Fellows and 32 NSF CAREER Awardees

Alumni

Known, living CSE alumni worldwide	10,086

Many Ohio State CSE graduates are distinguished scholars and leaders in both academia and industry.

THE UNIVERSITY OF ARIZONA
COLLEGE OF SCIENCE

Computer Science

Tenure-track Faculty

Kobus Barnard
Eduardo Blanco
Lei Cao
Christian Collberg
Saumya Debray
Alon Efrat
Roberto Giacobazzi
Kwang-Sung Jun
John Kececioglu
Joshua Levine
David Lowenthal
Jason Pacheco
Todd Proebsting
Sazzadur Rahaman
Ellen Riloff
Mihai Surdeanu
Beichuan Zhang
Chicheng Zhang

Teaching Faculty

Reyan Ahmed
Eric Anson
Diana Diazh
Cesim Erten
Russell Lewis
Melanie Lotz
Lester McCann
Janalee O'Bagy
Adriana Picoral
Ravi Sethi
Xinchen Yu

By the Numbers

Faculty: 29
Undergraduate Students: 1,600
Graduate Students: 85

New Program:

BS in Artificial Intelligence

- study methods for constructing systems that display intelligent behavior
- theoretical background and practical training in AI needed to build systems that transform unstructured data (such as images, video, audio, or natural language) and structured data (databases) into decisions

Recognition and Awards

Dr. Roberto Giacobazzi
ACM Distinguished Member 2023

Dr. Joshua Levine
DOE Early Career Research Award

Portia Cooper
Barry Goldwater Scholar

Notable Alumni

Dr. Rebecca Faust (PhD, '21), Assistant Professor, Tulane University
Dr. Daniel Fried (BS, '14), Assistant Professor, Carnegie Mellon Univ.
Dr. Terrence Lim (PhD, '23), Assistant Professor, Davidson College
Daniel Marashlian (BS, '04), Co-founder and CTO, Drata
Dr. Noah Snavely (BS, '03), Professor, Cornell Tech
Dr. Katy Williams (PhD, '23), Assistant Professor, Davidson College

Connect with us!

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Tucson, AZ 85721

UTA Department of Computer Science and Engineering

Fall 2024 Student Enrollment

2,626	1,430	204
BS	MS	Ph.D.

$11M FY '24 Research Expenditures

FY '24 Research Grants

$1M ONR, Tenable DC Power Networks, Nicholas Gans (Co-PI with faculty from EE)

$525K NSF, CAREER: Live Programming for Finite Model Finders, Allison Sullivan

$484K NSF, REU Site: Animal Language Processing and Understanding, Kenny Zhu

$450K AFRL, Phase II STTR: An Adaptable, Cost-Effective, Real-Time 3D Vision System for Advanced Manufacturing, William Beksi

$350K NSF, NeTS: Small: A Privacy-Aware Human-Centered QoE Assessment Framework for Immersive Videos, Ming Li

$300K NSF, POSE: Phase I: Scoping and Planning for an Open-Source Ecosystem of Machine Learning Models That Select Texts for Research Purposes, Chengkai Li

$220K NSF, Convergence Accelerator Track G: Combating Vulnerability and Unawareness in 5G Network Security, Phase 2, Remi Chou

$159K USDA, Developing Intelligent Tools for High-throughput Crop Phenotyping, William Beksi

$141K NSF, EAGER: HCC: Exploring Human Factors: Is a Teleoperated Robotics Framework Feasible for Persons who are Visually Impaired?, Fillia Makedon and Nicholas Gans

$119K AFRL, Enabling Lightweight Secure Containers with Assured Isolation, Hui Lu

$75K The Wolens Foundation Impact Grant, Mavericks Ending Technology-facilitated Abuse: Feasibility, Acceptability, and Program Adaptation, Shirin Nilizadeh (Co-PI with faculty from School of Social Work)

$70K Comcast Innovation Award, Leveraging Telegram Communities for Identifying Emerging Cybercriminal Activities, Shirin Nilizadeh

Student/Faculty Awards

2024 Cyber-Physical System Rising Stars (Faculty: Dr. Sihong He)

2024 ML Commons Rising Stars, Zahidur Rahim Talukder (Ph.D. student, advisor: Mohammad Atiqul Islam)

ACM E-Energy 2024, Best Notes Paper Award, Pranjol Sen Gupta, Md Rajib Hossem (Ph.D. students, advisor: Mohammad Atiqul Islam)

Distinguished Paper Award IEEE SP'24
Sayak Saha Roy, Poojitha Thota (Ph.D. students), Krishna Vamsi Naragam (Master's student), advisor: Dr. Shirin Nilizadeh

DoD SMART Scholarship, Nolan Gutierrez (Ph.D. student, advisor: Dr. William Beksi)

John S. Schuchman Outstanding Doctoral Student Award, Minh Tram (Ph.D. student, advisor: Dr. William Beksi)

N2Women: Rising Stars in Networking and Communications List (Faculty: Dr. Debashri Roy)

UTA STATS

#1 PUBLIC UNIVERSITY IN NORTH TEXAS | #1 BEST FOR VETS AMONG PUBLIC UNIVERSITIES | #5 FOR ETHNIC DIVERSITY
R-1 DOCTORAL UNIVERSITY | #3 IN TEXAS FOR ADVANCING SOCIAL MOBILITY | #5 FOR TRANSFER STUDENT ENROLLMENT

Welcome New Faculty!


JUDE AGUJIOBI
Assistant Professor of Instruction


NICHOLAS GANS
Associate Professor


SIHONG HE
Assistant Professor


YUEDE JI
Assistant Professor


NOMAAN MUFTI
Associate Professor of Practice


DIEGO PATIÑO
Assistant Professor


MUHAMMAD RASHEDUL HAQ RASHED
Assistant Professor


FRANCKLIN RIVAS
Associate Professor of Instruction


CHENXI WANG
Assistant Professor of Instruction


JIANDONG WANG
Lecturer


ZHIJUN WANG
Associate Professor of Research


BINBIN XIE
Assistant Professor

Faculty Numbers

50	31	10
Tenured/ Tenure-Track	Academic Professional Track	NSF CAREER Award Winners
4	**2**	**1**
IEEE Fellows	AIMBE Fellows	ACM Fellow

CS Rankings (2019-2024)

Overall: 64
Operating Systems: 11
High-Performance Computing: 12
Mobile Computing: 18
Design Automation: 27
Databases: 29
Computer Architecture: 46
Robotics: 53
Embedded & Real-Time Systems: 54
NLP: 63
AI: 65
Software Engineering: 71
CV: 80
Computer Security: 88

CS Rankings Papers (10/2023-9/2024)

ACC | ACL | ACM | DAC x2
EMNLP | EUROSYS |
HPCA | ICCAD x3 | ICCV
ICML x2 | ICRA | IEEE SP
IMC x3 | IROS x3 | MobiCom
MobiSys | NDSS | OSDI
SC x2 | SenSys |
Usenix Security | VLDB x2

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New Faculty Hires:

Shiry Ginosar
Assistant Professor
(PhD UC Berkeley)
Computer Perception, including vision, audio, and other sensory modalities

Kanishka Misra
Research Assistant Professor
(PhD Purdue University)
Computational Linguistics, NLP, Cognitive Science, evaluation of language models

Zhewei Sun
Research Assistant Professor
(PhD University of Toronto)
NLP, computational linguistics, machine learning for NLP, computational social science, language and cognition

Jingyan Wang
Research Assistant Professor
(PhD Carnegie Mellon)
Learning from People, Fairness, Machine Learning, Statistics

Tianhao Wang
Research Assistant Professor
(PhD Yale)
High-dimensional statistics and learning, deep learning theory

Research Highlights:

- Student Kumar Kshitij Patel and collaborators received an IJCAI 2024 Distinguished Paper Award
- Prof. Ali Vakilian and collaborators received an AISTATS 2024 Outstanding Student Paper Award
- Students Gene Li and Naren Manoj, Prof. Avrim Blum, and collaborators received an ALT 2024 Outstanding Paper Award
- Student Davis Yoshida and collaborators received an ACL 2024 Outstanding Paper Award
- Students Chung-Ming Chien and Ju-Chieh Chou, Prof. Karen Livescu, and collaborators received an ASRU 2023 Best Student Paper Award
- TTIC faculty and students published in major AI and Theory research venues including ACL, AISTATS, ALT, ASRU, COLT, CoRL, CSLaw, CVPR, EC, ECCV, EMNLP, ESA, FOCS, FORC, ICALP, ICASSP, ICCV, ICLR, ICML, ICRA, IJCAI, IROS, ITCS, NAACL, NeurIPS, RSS, SODA, STOC, and TACL.
- TTIC faculty and students showcased robotics at the Museum of Science and Industry Robot Block Party and engaged in a range of outreach activities
- TTIC is proud to be a member of the IDEAL NSF TRIPODS Phase II institute; TTIC faculty have also received significant funding awards from the NSF, NIH, DARPA, the Simons Foundation, and many corporate sponsors

RAP Placements:

- Emily Diana is now an Assistant Professor at Carnegie Mellon
- Jiawei Zhou is now an Assistant Professor at Stony Brook
- Lingxiao Wang is now an Assistant Professor at NJIT
- Theodor Misiakiewicz is now an Assistant Professor at Yale

2024 PhD Graduates:

- Lingyu Gao (advised by Kevin Gimpel) is now an AI Engineer at ETS
- Ben Lai (advised by Jinbo Xu) is now an AI Fellow at the CZ Biohub Chicago
- Han Shao (advised by Avrim Blum) is now a postdoc at Harvard and will be joining UMD as an Assistant Professor
- Freda Shi (advised by Kevin Gimpel and Karen Livescu) is now an Assistant Professor at U Waterloo
- Shashank Srivastava (advised by Madhur Tulsiani) is now a postdoc at Rutgers and IAS
- Kevin Stangl (advised by Avrim Blum) is now a Research Scientist at HiddenLayer
- Takuma Yoneda (advised by Matt Walter) is now a Research Scientist at Google DeepMind
- Davis Yoshida (advised by Kevin Gimpel) is now a Machine learning Engineer at Continua AI

Congratulations to all our 2024 PhD Graduates!

By the numbers (Fall 2024):

- PhD Students: 39
- Research Assistant Professors and Research Scientists: 13
- Tenured and tenure-track faculty: 13

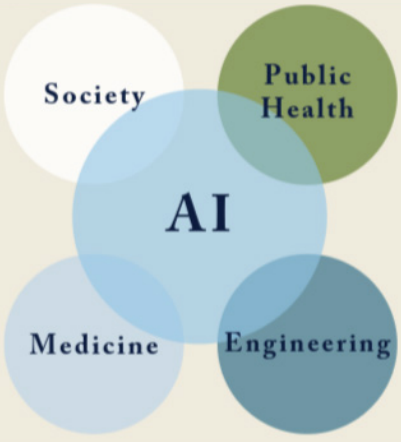
Department of Computer Science

TULANE UNIVERSITY
School *of* Science
& Engineering

The Tulane Difference:

Capitalizing on the rich diversity and history of the city of New Orleans, the growing team of researchers uses a diversity of backgrounds, skillsets, and lenses to tackle the challenges of our time, including:

- **DEI through fairness in AI**
- **Engagement with medical and bio health communities (Public Health)**
- **Building smart, interconnected cities**
- **Integrity of new developments in AI, networking, security, accessibility, and more**



Advanced AI Research in an Interdisciplinary Environment:

- Accessability
- Biomedicine
- Cancer Research and Pathology
- Economics
- Immunology
- Law
- Materials Science
- Political Sciences
- Quantum Computing
- Social Sciences
- Transportation

President Joseph R. Biden and First Lady Dr. Jill Biden visited Tulane's SSE to honor and acknowledge the strides Tulane has continued to make, as they pledged $23M in Advanced Research Projects Agency for Health (ARPA-H) funding to develop the revolutionary cancer "Moonshot" project. The project highlights the interdisciplinary nature of Tulane as it is co-led by Brian Summa, associate professor of computer science and Quincy Brown, associate professor of biomedical engineering and leader of MAGIC-SCAN, a new Tulane project that aims to create a machine-learning-assisted imaging system capable of identifying even the tiniest remnant of cancer during surgery.

Departmental Disciplines:

- Accessible Computing and Human-Computer Interaction
- Artificial Intelligence and Data Science
- Computational Biology and Bioinformatics
- Computational Geometry, Shape Matching, or Trajectory Analysis
- Computer Systems and Architecture
- Machine Learning
- Networking and Security
- Scientific Visualization and Computer Graphics

Tulane is unique for its particularly collegial, intimate classroom setting where students and faculty work closely together to make interpersonal connections and positive impacts upon the community.

Making massive (green) waves!
With over $4M dollars per faculty over the last 5 years, Tulane is poised to continue to lead the study and implementation of computer science, AI, data technology, and more across the world to improve humanity.

Visit
sse.tulane.edu/cs
to learn more

Department Chair:
Carola Wenk, PhD
cwenk@tulane.edu
(504) 865-5782

University at Buffalo
Department of Computer Science and Engineering
School of Engineering and Applied Sciences

Website
LinkedIn
Tel: 716.645.3180

29th Computer Science program among public schools

53rd Computer Science program nationally

New Faculty Hires

Adekunle Afolabi
PhD, University of Eastern Finland
Assistant Professor of Teaching

Bakr Albahri
PhD, University of Illinois at Chicago
Associate Professor of Teaching

Yorah Bosse
PhD, University of São Paulo, Brazil
Assistant Professor of Teaching

Haipeng Cai
PhD, University of Notre Dame
Associate Professor

Xiangyu Guo
PhD, University at Buffalo
Assistant Professor of Teaching

Asif Imran
PhD, University at Buffalo
Assistant Professor of Teaching

Vishnu Lokhande
PhD, University of Wisconsin-Madison
Assistant Professor

Xi Lu
PhD, University of California, Irvine
Assistant Professor

Naeem Maroof
PhD, Hanyang University, South Korea
Associate Professor of Teaching

Mostafa Mohammed
PhD, Virginia Polytechnic Institute
Assistant Professor of Teaching

Maria Rodriguez
PhD, University of Washington
Principal Research Scientist

Ryan St. Pierre
PhD, University of Maryland
Assistant Professor

Qianchuan Ye
PhD, Purdue University
Assistant Professor

Empire AI

Governor Kathy Hochul has chosen the University at Buffalo as the hub for Empire AI, a transformative $400 million initiative aimed at positioning New York State as a global leader in AI. Empire AI will leverage UB's expertise in AI and data science to drive innovation, research, and economic development. The initiative, which includes SUNY, CUNY, private colleges and universities, aims to create sustained economic impact and establish New York as a reliable source of AI innovation.

NSF Awards

- **Sreyasee Das Bhattacharjee** received a $1,000,000 3-year NSF award entitled “Explorations: Refugees & Underprivileged Students Experiential Learning in Emerging STEM Technologies.”
- **Haonan Lu** received a $580K grant for his project, "CSR: Small: Squeezing More Performance Out of Distributed Storage Systems With a Transparent Ordering-Control Layer."
- **Kaiyi Ji** received a $600K award for his project, "Collaborative Research: CIF: Small: New Theory, Algorithms and Applications for Large-Scale Bilevel Optimization."
- **Wenyao Xu** and his team (Chi Zhou and Hongyue Sun) were awarded $565K for their research "Ethical Industry 4.0: Embedding Legality, Integrity, and Accountability in Digital Manufacturing Ecosystems."
- **Zhuoyue Zhao** received his first NSF CAREER Award for his project titled: “Speedy and Reliable Approximate Queries in Hybrid Transnational/Analytical Systems,” and was awarded $600k.
- **Tevfik Kosa**r received an award of $175,000 for his project titled: “EAGER: CET: GreenSW: Fostering Sustainable HPC and Cloud Software Systems through AI-Enabled Energy-aware Code Smell Refactoring.”
- **Chunming Qiao** received a new $400K NSF Medium award for his project “Collaborative Research: CSR: Medium: Scalable Quantum Computing with Virtual Quantum Machines.”

Student Excellence

- PhD student **Isys Johnson,** secured the NSF INTERN Award for her project, "Studying Multivariate Convolutions via 4DSOUND," granting UB $16,000—the first such grant awarded to the university.
- PhD Students **Lu Dong** and **Bhavin Jawade** presented their work at the 18th IEEE International Conference on Automatic Face and Gesture Recognition in Istanbul, Turkey. Jawade presented his research on robust fingerprint presentation attack detection. Dong presented two studies: one on video-based human representation for ASL alphabet generation and another on SignAvatar, a 3D motion reconstruction tool for sign language.

Grants & Funding

- **Jinjun Xiong** and **Christopher Hoadley** are the principal investigators for the “Center for Early Literacy and Responsible AI (CELaRAI),” funded by the U.S. Department of Education with a $10 million grant over five years. “CELaRAI” is led by Christine Wang in UB’s Graduate School of Education.
- **Wenyao Xu** and his team awarded an approved budget of $3 million over four years from the National Institutes of Health (NIH) for their project "mHealth Technologies for Assessing Blood Perfusion in Chronic Wounds,” where he serves as principal investigator.
- **Shambhu Upadhyaya,** Director of Center of Excellence in Information Systems Assurance Research and Education (CEISARE), received a highly competitive grant from National Security Agency of $126,133 to run a cybersecurity summer camp for middle school and high school kids.
- Moog, Inc. is providing $750,000 to support research at UB's Center for Embodied Autonomy and Robotics (CEAR), led by **Karthik Dantu**.

Further Recognition

- **Srirangaraj Setlur** and **Venu Govindaraju** recieved “Best Paper Award” at the IEEE International Joint Conference in Biometrics (IJCB 2023) in Ljubljana, Slovenia.
- **Venu Govindaraju,** UB Vice President for Research and Economic Development, received the UB President’s Medal for his contributions in artificial intelligence and data science. The recognition highlights Govindaraju’s role in founding the Institute for Artificial Intelligence and Data Science at UB, along with his extensive research achievements, including securing over $95 million in sponsored funding and authoring nearly 500 publications.
- **Hongxin Hu** was awarded the Test of Time award for the paper "Game theoretic analysis of multiparty access control in online social networks."
- **Jinjun Xiong** and team received the Best Paper Award for "On Interpretability of Artificial Neural Networks: A Survey," from the IEEE Transactions on Radiation and Plasma Medical Sciences.

College of
Engineering
DEPARTMENT OF COMPUTER SCIENCE
CS.UA.EDU

NEWS & HIGHLIGHTS

*UA announces the newly created Alabama **Center for the Advancement of Artificial Intelligence** (ALA-AI)*

*New HPC data center is underway at UA to support **cutting-edge computational research***

*UA's Crimson Defense Cyber Security Club hosted **40 teams** during the **2024 Capture The Flag Competition***

DEGREES

BS IN COMPUTER SCIENCE
BS IN CYBER SECURITY
BS IN DATA SCIENCE
MS IN COMPUTER SCIENCE
PHD IN COMPUTER SCIENCE

RESEARCH

Cybersecurity
Software Engineering
Robotics
Machine Learning
Brain-Computer Interface
Data Science
Networking
CS Education

FUNDING AGENCIES

NSF, NSA, NIH, DOT, US Army, NOAA, AFOSR

Recent Faculty Hire

Md Rayhanur Rahman
Assistant Professor
Software Engineering and Cybersecurity
PhD, North Carolina State University

Faculty Spotlights

Lina Pu
Assistant Professor
Edge Computing, Sustainable IoT, Wireless and Underwater Networking

Ahmad Alsharif
Assistant Professor
Applied Cryptography, Security and Privacy, Trustworthy Computing

Jiaqi (Jackey) Gong
Associate Professor
Director, ALA-AI Center
AI, Human Centered Computing

Purushotham Bangalore
Professor
NSF Program Director, CISE/OAC
High-Performance Computing

Department of Computing Science
UNIVERSITY OF ALBERTA

#2
in North America for the area of artificial intelligence

#6
in Canada for computing science
[csrankings.org, October 2024]

2,700+
undergraduate students across all CS programs

450+
graduate students

$15M+
in research funding

51
faculty members
(7 assistant, 9 associate, and 35 full)

- Home of Amii, one of three federally funded institutes in Canada for advancing artificial intelligence and machine learning research
- Changing Edmonton's high tech landscape by attracting major research collaborators such as Scotia Bank, IBM Centre for Advanced Studies, Mitsubishi, among others
- Excellence in games research (e.g., Poker, Go, Hex, Skat)
- Creator of online Artificial Intelligence Everywhere course to bring foundational AI skills to a broad audience
- Co-founder of Certificate in Computer Game Development
- Creators of highly popular MOOC specializations in Software Product Management, Software Design and Architecture, and Reinforcement Learning

- Ten Canadian Institute For Advanced Research (CIFAR) AI Chairs
- Our students are routinely recruited by top companies such as Google, Facebook, Amazon, Microsoft, and IBM, and by a vibrant, local startup ecosystem, involving companies such as Jobber and AltaML
- Partner school in CRA UR2PhD program to engage more women and gender-marginalized people in research
- Prof. Rich Sutton, one of the founders of reinforcement learning, elected as a Fellow of the Royal Society of London
- Prof. Csaba Szepesvári, elected as a Fellow of the Association for the Advancement of Artificial Intelligence (AAAI)

- Assoc. Prof. Omid Ardakanian, ACM SIGEnergy Rising Star Award, 2024
- Assoc. Prof. Carrie Demmans-Epp, CRA-E Undergraduate Research Faculty Mentoring Award 2023
- Prof. Russ Greiner, Killam Award for Excellence in Mentoring 2023
- Assoc. Prof. Martha White, Women in AI Awards (North America) 2023
- Prof. Osmar Zaiane, CS-Can|Info-Can Lifetime Achievement Award 2023

Recently hired faculty:

Assist. Prof. Dieter Buechler (PhD TU Darmstadt, 2019)

Assist. Prof. Bailey Kacsmar (PhD U Waterloo, 2023)

Assist. Prof. Marlos Machado (PhD U Alberta, 2019)

Edmonton, Alberta, Canada
ualberta.ca/computing-science

UNIVERSITY OF ALBERTA

UNIVERSITY OF ARKANSAS | College of Engineering

ENGINEERING.UARK.EDU

ELECTRICAL ENGINEERING & COMPUTER SCIENCE

The Department of Electrical Engineering and Computer Science is dedicated to developing the next generation of electronics and computing hardware and software. With the largest student enrollment in the College of Engineering, this department offers four undergraduate degree programs, three graduate certificate programs, three Master of Science programs, and three doctoral programs. With the highest rate of research in the college, faculty are focusing on cutting-edge technology areas such as power systems and power electronics, artificial intelligence, semiconductor materials, Terahertz imaging, digital and analog VSLI, big data, signal processing, cybersecurity, and much more. New research centers created within the department are addressing some of the most pressing challenges in the tech world. These centers connect computer science, computer engineering, and electrical engineering researchers with colleagues from outside departments, colleges, universities, government agencies, and industry stakeholders. The Department of Electrical Engineering and Computer Science is a hub for interdisciplinary research with real-world applications.

Department Head

Jia Di

Rodger S. Kline Chair

RESEARCH AREAS

Artificial Intelligence

Cybersecurity

Semiconductor Materials

Terahertz Imaging

Digital and Analog VLSI

Power Systems & Power Electronics

Computer System Design & Software Engineering

& Much More!

BY THE NUMBERS

44
Total Faculty

867
Undergraduate Students

236
Graduate Students

** Numbers are based on fall 2024 data reported by the Office of Institutional Research and Assessment (oir.uark.edu).*

Degrees Offered

UNDERGRADUATE PROGRAMS

- B.A. in Computer Science
- B.S. in Computer Science
- B.S. in Computer Engineering
- B.S. in Electrical Engineering

GRADUATE PROGRAMS

- M.S. in Computer Science
- M.S. in Computer Engineering
- M.S. in Electrical Engineering
- Ph.D. in Computer Science
- Ph.D. in Computer Engineering
- Ph.D. in Electrical Engineering

CONTACT US

Electrical Engineering & Computer Science
504 J.B. Hunt Building
Fayetteville, AR 72701
(479) 575-4278 | eecs@uark.edu
eecs.uark.edu

instagram.com/uarkeecs

linkedin.com/company/uarkeecs

facebook.com/uarkeecs

youtube.com/@uarkeecs

THE UNIVERSITY OF BRITISH COLUMBIA

Computer Science
Faculty of Science

75 Faculty • **230** Graduate students • **2,800** Undergrad students • **150** Master of Data Science students

14 NEW FACULTY We're hiring the best and the brightest


Reto Achermann


Kelsey Allen


Peter Yichen Chen


Nathaniel Harms


Nguyen Phong Hoang


Elham Khoda


Ilya Musabirov


Akshay Ramachandran


Evan Shelhamer


Xin Tang


Serena Wang


Yuanhao Wei


Peter West


Wanrong Zhang

RECENT ACCOLADES

CRA Outstanding Undergraduate Researcher Award
Arvin Sahami

Faculty

AAAI Fellow: Cristina Conati

ICML Best Paper Award: Jeff Clune

SIAM Fellow: Michael Friedlander

FSE and ICSE Most Influential Paper Awards: Reid Holmes

UBC Killam Research Prize: Joanna McGrenere

Genome BC Award: Raymond Ng

ACM SIGGRAPH Academy: Dinesh Pai

Arthur B. MacDonald Fellowship Award: Mark Schmidt

RSC Fellow: Margo Seltzer

ETHE High Impact Award: Dongwook Yoon

Graphics Interface Early Career Researcher Award: Dongwook Yoon

Two CHI Best Paper Awards: Dongwook Yoon

Graduate Students

- 3 Federal MSc scholarships
- 5 Federal Doctoral scholarships
- 1 NSERC CREATE scholarship in Quantum Computing
- 2 MSc scholarships from the German Academic Exchange Service
- 2 Killam Doctoral scholarships
- 13 Graduate students funded through MITACS industry partnerships

Competitive Programming Teams

- 1st place at DEF CON for UBC Capture the Flag team (3rd year in a row)
- 1st place for a UBC programming team at the ICPC Pacific Northwest
- UBC hosts many hackathons: youCode, BCS Hacks, nwHacks, HackCamp, cmd-f, SaplingCTF, MapleCTF

4,309
undergraduates and graduate students

34
National Academy of Engineering members

6
Turing Award winners

$970k
research expenditure per FTE faculty

Electrical Engineering & Computer Sciences

UC Berkeley's Department of Electrical Engineering and Computer Sciences (EECS) houses top-ranked programs that attract stellar students and professors from around the world, pioneering the frontiers of information science and technology with broad impacts on society. As the largest and one of the most distinguished departments on the Berkeley campus, EECS has been at the forefront of research that has led to important advancements in semiconductor and MEMS devices, design technology, computer architecture, operating systems and databases, and wired and wireless networking. Our graduates now make up the core of today's technology industry.

Did you know?

- The year 2023 marked the 50th anniversary of the Department of Electrical Engineering & Computer Sciences (plural). UC Berkeley EECS, as it is known today, was formally ratified on July 1st, 1973 after merging with the Department of Computer Science in the College of Letters & Sciences
- EE Professor Joseph Thomas Gier became the first Black professor to achieve tenure in the UC system when he was promoted to associate professor in 1952. An early pioneer in solar energy, he was an expert in the field of thermal and luminous radiation, whose inventions were used in the earliest days of space exploration.
- EECS Professor David Patterson directed the "reduced instruction set computer" (RISC) project at Berkeley, making CPUs faster and more efficient. Today, 99% of the 16 billion microprocessors produced annually are RISC processors. In 2018, Patterson and Stanford's Joh Hennessy won a Turing Award, the Nobel Prize of computing, for this work.

UC Berkeley
EECS

UC Berkeley School of Information

The UC Berkeley School of Information (I School) is a graduate research and education community committed to advancing knowledge and practice wherever people interact with information and technology.

A New Dean & a New Era for the I School

On August 1, 2024, **Eric T. Meyer**, previously dean of the University of Texas at Austin's School of Information, began his tenure as dean of the University of California, Berkeley, School of Information. His guiding principles moving forward include operating with an abundance mentality; amplifying UC Berkeley as a bellwether; connection, through interdisciplinary collaboration; and diversity and belonging.

#1 online master of data science*

#2 online master of cybersecurity*

1,200+ students

7,000+ alumni

$9M+ active research grant funding

*according to 2024 rankings by Fortune Magazine

Recent Research, Funding, News & Awards

- **Coye Cheshire** and collaborators have won a $300K grant from the UC Noyce Initiative on computational health to study misinformation surrounding reproductive health on social media.
- **David Bamman** received a $200K grant from the Mellon Foundation for the project 'Text and Data Mining: Demonstrating Fair Use.'
- **Deirdre Mulligan** has returned to the School of Information after serving as Principal Deputy U.S. Chief Technology Officer in the White House's Office of Science and Technology Policy.
- **Hany Farid** a preeminent expert in synthetic media detection has started a new company, GetReal Labs, to provide advanced content authentication and deepfake detection.
- **John Chuang** has established **IceBerk** — a multidisciplinary lab focused on using informatics for climate empowerment.
- **Joshua Blumenstock** received $131,806 from the Centre for Economic Policy Research for 'Household-level welfare estimates from satellite imagery.'
- **Qiang Xiao** received a $800K grant from the U.S. Department of State Bureau of Democracy, Human Rights and Labor for the Expert Group Project.
- Renewed funding UC Berkeley's **Public Interest Cybersecurity Program** will build capacity in UC Berkeley-led public-interest cybersecurity across the nation.

Recent Ph.D. Placements

Emily Aiken '24 postdoctoral scholar, Carnegie Mellon University, Africa; Assistant Professor, UC San Diego beginning in Fall '25
Jeremy Gordon '23 Founder & CTO, Olli Health
Jonathan Gillick '22 Postdoctoral Research Fellow, Creative Computing Institute, University of the Arts, London
Shazeda Ahmed '22 Chancellor's Postdoctoral Fellow, UCLA
Nitin Kohli '21 Staff Scientist and PI, UC Berkeley Center for Effective Global Action: Data Privacy Lab
Anne Jonas ('21) Assistant Professor, University of Michigan - Flint

Our Programs

- Master of Information Management and Systems (MIMS)
- Ph.D. in Information Science
- Master of Information and Data Science (MIDS)
- Master of Information and Cybersecurity (MICS)

New Faculty

Elijah Baucom
Lecturer, Public Interest Cybersecurity; Director, UC Berkeley Cybersecurity Clinic

Nina Beguš
Lecturer, "Artificial Humanities" Postdoctoral Fellow, Center for Science, Technology, Medicine, & Society

Diag Davenport
Assistant Professor, Tech Policy; Joint appointment with Goldman School of Public Policy

Tim Tangherlini
Professor, Cultural Analytics; Joint appointment in Scandinavian; Associate Director, Berkeley Institute for Data Science (BIDS)

UCLA Samueli Computer Science

HIGHLIGHTS 2024

NEW FACULTY

Sandra Batista
Teaching Professor
Ph.D.
UCLA

Ying Sheng
Machine Learning Systems
Ph.D.
Standford University

Yuchen Cui
Robotics
Ph.D.
University of Texas, Austin

Hanrui Wang
Quantum Computing
Ph.D.
MIT

Konstantinos Kallas
Computer Systems
Ph.D.
University of Pennsylvania

Lianmin Zheng
Machine Learning Systems
Ph.D.
UC Berkeley

FACULTY AWARDS & HONORS

NSF CAREER Award: Aditya Grover
NSF CAREER Award: Nanyun Peng
NSF CAREER Award: Bolei Zhou
Forbes 30 under 30: Saadia Gabriel
Forbes 30 under 30: Aditya Grover
National Academy of Sciences: Leonard Kleinrock
American Academy of Arts and Sciences: Jason Cong
Fellow of the American Mathematical Society: Amit Sahai
UCLA Engineering Eon Instrumentation Inc. Excellence in Teaching Award: Todd Millstein

STUDENT AWARDS & HONORS

Google Ph.D. Fellowship: Ph.D. student Harold Li
Superalignment Fast Grant from OpenAI: Ph.D. student Yihao Xue
Bloomberg Data Science Ph.D. Fellowship: Ph.D. student Pan Lu
J.P. Morgan Chase Ph.D. Fellowship: Ph.D. student Shichang Zhang
ACM's 2023-2024 Outstanding Chapter Website: The UCLA student chapter of ACM

BREAK THROUGH TECH AI

- Break Through Tech AI is part of a national program designed to teach AI to a greater diversity of students.
- The program has 250 students with 194 female or female-identifying, 53 are Black, Latina, or Native American, 88 are low income, 90 are first-generation college goers, and 47 are at community colleges.
- 84% of the 2023 UCLA cohort secured internships in AI and ML, with 38 different employers, namely, Amazon, Apple, Panasonic, DirecTV, Verizon, and Los Angeles World Airport, just to name a few.

NUMBERS

US News: UCLA is the #1 public university in the country for the 8th year in a row
14,707 freshman computing applications for Fall 2024, which is more than 10% of all freshman applications to UCLA
csrankings.org: #2 in Cryptography, #3 in Comp. bio & bioinformatics, #6 in Artificial intelligence and Machine learning

UNIVERISTY OF CLAIFORNIA MERCED

COMPUTER SCIENCE AND ENGINEERING

SCHOOL OF ENGINEERING

BY THE #S

EST. 2005

Since its establishment in 2005, 12 of the current 20 faculty have received a Career Award, including 10 from NSF and 2 from DOE.

RANKED #1

IN THE NATION FOR SOCIAL MOBILITY

THE WALL STREET JOURNAL

#64 COMPUTER SCIENCE

#13 COMPUTER VISION

#7 HIGH-PERFORMANCE COMPUTING (HPC)

#17 MOBILE COMPUTING

CSRANKINGS.ORG

20 FACULTY | **1,452** UNDERGRADUATE STUDENTS FALL 2024 | **1,465** B.S. DEGREES AWARDED SINCE 2005 | **87** GRADUATE STUDENTS FALL 2024 | **79** PH.D. + **63** M.S. DEGREES AWARDED SINCE 2005

RECENT AWARDS

Hyeran Jeon

NSF Career Award, 2024

For architecting highly scalable and reliable GPU platforms that can achieve almost linear speedup with the scaling of GPU chiplet modules and memory devices

Xiaoyi Lu

NSF Career Award, 2023

For designing innovative heterogeneity-enriched communication schemes and software, with the objective of advancing the usability, efficiency, and scalability of HPC systems and applications

Pengfei Su

Hellman Fellowship, 2024

For developing new profiling techniques to measure, analyze, and optimize systemic inefficiencies across modern deep-learning software stacks (from low-level compute kernels to high-level model designs)

RECENT HIRES

Giovanni Gonzalez Araujo

Ph.D., University of California, Merced

Research areas: development of educational software tools for effective teaching and learning in computer science; development of interactive curriculum for introductory programming courses

Ross Greer

Ph.D., University of California San Diego

Research areas: autonomous driving, computer vision, machine learning, human-robot interaction

Yiwei Wang

Ph.D., National University of Singapore

Research areas: large language models (LLM), natural language processing (NLP), graph machine learning

RECENT HIGHLIGHTS

- **Wan Du**
  Best paper award at the ACM/IEEE IoTDI 2024 conference for the paper "Orientation Estimation of Mobile Devices Piloted by Deep Reinforcement Learning"
- **Xiaoyi Lu**
  Best paper nomination at the IPDPS 2024 conference for the paper "Accelerating Lossy and Lossless Compression on Emerging BlueField DPU Architectures"
- **Ming-Hsuan Yang**
  Best paper award at the ICML 2024 conference (10 best papers out of 10,000 submissions) for the paper "VideoPoet: A Large Language Model for Zero-Shot Video Generation"
- Ph.D. alumni **Carlos Diaz Alvarenga**, **Yesdaulet Izenov**, and **Maryam Khazaei Pool** start faculty positions at CalPoly University, Nazarbayev University (Kazakhstan), and San Jose State University

MORE INFORMATION @ eecs.ucmerced.edu

UCMERCED

UC RIVERSIDE | Computer Science and Engineering

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UCR_CSE

HIGH PLACEMENT AND GROWTH

28TH
CS DEPT
CSRANKINGS.ORG

2ND
Computer architecture, design automation, embedded systems, high performance computing

9TH
Bionformatics

9TH
Systems

14TH
Security

NUMBERS AND STATS

U.S.News & WORLD REPORT

1ST SOCIAL MOBILITY
U.C. Riverside
USNWR, 2024

OUR PROFILE

43 FACULTY MEMBERS

177 PHD STUDENTS

380 M.S. STUDENTS

1671 B.S. STUDENTS

FEATURED NEWS

NEW PROGRAMS LAUNCHED

- **Launched Data Science Minor Degree:** We welcome a new interdisciplinary data science minor program between engineering and the natural sciences.

GROUND BREAKING RESEARCH

- **Three New CAREER Awards:** Our young faculty continues to make its mark in the research community. This brings the total number of CAREER awards to 21 for the department - with Professors Yan Gu, Ioannis Karamouzas, and Elaheh Sadredini as the newest awardees.
- **Two New Google Research Scholar Awards**: Our faculty are making an impression on industry with CSE Professors Yihan Sun and Yan Gu being awarded the 2024 Google Research Scholar Awards to make significant advancements in parallel graph mining.
- **Enhancing Security**: CSE Professor Qian leads the UC Riverside effort to protect and modernize legacy critical software funded by a $2.3M DARPA grant.
- **UCR RAISE AI Center**: CSE Professor Tsotras will co-direct a new Riverside Artificial Intelligence (RAISE) Institute that brings together over 85 UCR faculty to drive highly collaborative foundational research advances.

FACULTY AWARDS AND ACKNOWLEDGEMENTS

- **ACM Fellow:** CSE Professor Trent Jaeger has been named an ACM Fellow for his contributions to research and education in operating systems and software security.
- **Lifetime Contributions SIGCOMM Award**: Recognizing a lifetime of contributions in the networking, CSE Professor K.K. Ramakrishnan is the sole 2024 recipient of the SIGCOMM Award for Lifetime Contributions.
- **ISCB Fellow**: Professor Tao Jiang has been named a fellow by the International Society for Computational Biology (ISCB), the leading professional society for computational biology and bioinformatics (ISCB) for his pioneering algorithms research on combinatorial optimizations.

STUDENT HIGHLIGHTS

- **Competitive Programming Team is Making History:** The UCR team ranked 4th overall at the International Collegiate Programming Contest which was led by head coach and CS faculty Professor Yan Gu.
- **Silver Medal at the ACM Student Research Competition:** CSE PhD student Xin Zhang, advised by Professor Ahmed Eldawy, was awarded a silver medal in the Student Research Competition in the premier database conference ACM SIGMOD.

COMPUTER SCIENCE & ENGINEERING

UNIVERSITY OF CALIFORNIA SAN DIEGO

UC San Diego
JACOBS SCHOOL OF ENGINEERING

NEW FACULTY

7 new tenure-track faculty have joined CSE's ranks in the last 2 years.

Raj Ammanabrolu
Machine Learning, Language Models

Trevor Bonjour
AI Education, Machine Learning

Loris D' Antoni
Software, Machine Learning

Yufei Ding
Quantum Computing

Deepak Kumar
Online Security

Qipeng Liu
Quantum Computing

Lianhui Qin
Machine Learning, Language Models

Affiliated Faculty from Halıcıoğlu Data Science Institute

Alex Gantman
Professor of Practice

Haojian Jin

Yu-Xiang Wang

Hao Zhang

FACULTY AWARDS & HONORS

Our faculty members in the 2023-2024 academic year once again received national recognition for contributions to their fields and society. Highlights include:

Ravi Ramamoorthi
Frontiers of Science

Vineet Bafna
ACM Fellow

Fan Chung
National Academy of Sciences

Nadia Heninger
ICAR Test of Time Award

Rose Yu
MIT Technology Review Innovators Under 35 & DARPA Young Faculty Award


Jingbo Shang, Hao Su
NSF CAREER Awards


Earlence Fernandes & Amy Ousterhout
Google Research Scholar Award



Yufei Ding, Sicun Gao, Nadia Heninger
Amazon Research Award



Taylor Berg-Kirkpatrick, Stefan Savage, Kristen Vaccaro
Google Trust & Safety Research Award

For a complete list of CSE faculty awards, visit **cse.ucsd.edu/faculty-research/faculty-awards**

CSE BY THE NUMBERS 2023-2024

MEETING GROWTH AND DEMAND

RANKED 3RD BY CSRANKINGS.ORG

1,607 UNDERGRADUATES

636 M.S. STUDENTS

328 PH.D. STUDENTS

3

90 FACULTY

46 AFFILIATED FACULTY

14,860 ALUMNI

$48M RESEARCH EXPENDITURES

CSE RESEARCH INNOVATION & IMPACT

Two Elected to National Academy of Engineering

Rob Knight, an international leader in the study of microbiomes, and Stefan Savage, a chief expert in cybersecurity, are two recent electees to the National Academy of Engineering - the highest professional recognition afforded to engineers and computer scientists.

UC San Diego Leads $50.5M Center for Computing

CSE's Tajana Simunic-Rosing is leading the Processing with Intelligent Storage and Memory center, or PRISM, which is partially funded by a $35M contract given by the Semiconductor Research Corporation to make computing orders of magnitude faster and more efficient.

AI@CSE: CHECK OUT THE LATEST AI RESEARCH AT CSE
ai.ucsd.edu

CONNECT & LEARN MORE
cse.ucsd.edu

UC **SANTA BARBARA**

Computer Science

New Faculty Members

Sanjukta Krishnagopal — *Network Science, Nonlinear Dynamics, Topological ML*

Nabeel Nasir — *CS Education, IoT, & Edge Computing*

Murphy Niu — *Quantum Computing & Quantum Machine Learning*

James Preiss — *Machine Learning, Data Mining, Robotics & Autonomy*

By the Numbers

43 Faculty members (25 full, 3 associate, and 15 assistant professors)

16 Staff members

1,090 Undergrads

223 Graduate students (140 PhD, 83 MS)

10 $10 million in research awards (avg. over two years)

Research Highlights

ACTION — The AI Institute for Agent-based Cyber Threat Intelligence and Operation is a $20-million, UCSB-led effort to change the way mission-critical systems are protected against ever-changing security threats.

FifTech — Professor Dahlia Malkhi's **Foundations of Financial Technology** lab carries out research on two principle tracks: distributed systems for decentralized, hybrid off/on-blockchain shared state; and decentralized finance, examining economic markets, laws & regulations, and mechanism design.

Other highlights: The **Bionic Vision Lab**; The **Center for Responsible Machine Learning**; **DARPA HARDEN**; The **Human-AI Integration Lab**.

Recent Awards & Honors

FACULTY

Divyakant Agrawal — NSDI 24 Outstanding Paper Award; IEEE MDM 2024 Test of Time Award

William Wang — IEEE SPS Pierre-Simon Laplace Early Career Technical Achievement Award

Prabhanjan Ananth — NSF CAREER Award

Amr El Abbadi — NSDI 24 Outstanding Paper Award; IEEE MDM 2024 Test of Time Award

Wenbo Guo — First Place, ICSE24 17th Intl. Workshop on Search-Based Fuzz Testing

Chris Kreugel — 2023 ACM Fellow

Richert Wang — UCSB Distinguished Teaching Award

STUDENTS

Isaac Hair — Barry Goldwater National Scholarship

Wangrong Zhu — Rising Stars in Machine Learning

Joyce Passananti —NSF GRFP Fellow

Haarika Manda — NSF GRFP Fellow

Ursula Hebert-Johnson — ESA Best Paper Award

Department of Computational Media

CREATING INNOVATIVE & IMPACTFUL INTERACTIVE EXPERIENCES

WE THRIVE AT THE INTERSECTION OF MEDIA AND TECHNOLOGY

Our department engages in boundary-pushing research and education that integrates **technical, interpretive, and design work** to create experiences that broad societal impact.

Our graduates are leaders in the interactive media field; they are socially conscious and reflective designers. They help create a more equitable future, drawing from UC Santa Cruz's long-standing tradition in social justice.

HEVGA FELLOWS*

Magy Seif El-Nasr
Prof & DepartmentChair

Katherine Isbister
Prof. & BE Endowed Chair
ACM Distinguished Scientist

Michael Mateas
Prof. & Grad Director

Jim Whitehead
Prof. & Undergrad Director

Noah Wardrip-Fruin
CM Prof

* The Higher Education Video Game Alliance (HEVGA) Fellows Program recognizes senior scholars, elected by their peers, for outstanding games-based research, design, and theory.

UC SANTA CRUZ | Baskin Engineering

Our department resides in both **Silicon Valley** and **Santa Cruz,** housing faculty within **multiple interdisciplinary areas** connecting Human-Computer Interaction, Artificial Intelligence, Games Research, Human-Robot Interactions, and the Humanities

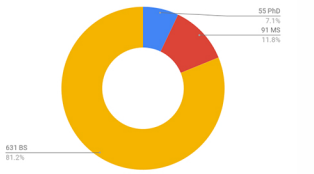
- **#1 Academic Program in Games****
- **#2 Game Design MS Program** (Animation Career Review)
- **#5 Game Design Undergraduate Program** (U.S. News and World Report)
- **#15 Game Design MS Program** (Princeton Review)

Research + Industry: We **collaborate** with Industry and build **Innovations** focusing on **global issues** with **practical considerations**, maximizing **societal impact** and minimizing **social injustice**

- Over $2.6 million grantred this past year from organizations such as NSF and JSMF
- Industry engagements with **Honda, Microsoft, Google, NetEase, Truist, MasterCard**, and many others
- Over 70 companies visit our campus each year to engage and collabrate with faculty and students

HCI MS Mentor Coalition: Connecting experienced HCI/UX practitioners from industry and non-profts to our HCI MS students

A total of 777 students in 5 programs: B.S. in Computer Science and Game Design, M.S.in Games and Playable Media, M.S. in HCI, M.S. and Ph.D in Computional Media



11 labs researching disciplines within Computional Media

Wildfire Resilience Minigames: Designed/ Developed by the SET Lab in an NFS-funded collaborative project that includes UCSC GUII Lab, UCB and UCD researchers

MIsfit Lab is a team of interdisciplinary researchers and designers focused on community, care and access

LUX: ARG designed by GUII and ID Labs

Spoke It: playful speech therapy by ASSIST Lab

** Based on number of papers published at conferences and journals dedicated to the technical portion of games and interactive entertainment research over the past 10 years.

2024 FAST FACTS

UCF Department of Computer Science

#27 ARTIFICIAL INTELLIGENCE, COMPUTER VISION AND MACHINE LEARNING
- CSRankings

#1 COLLEGIATE CYBERSECURITY COMPETITION TEAM
- Raytheon NCCDC

2 NATIONAL ACADEMY OF INVENTORS MEMBERS

9 NATIONAL SCIENCE FOUNDATION CAREER AWARD WINNERS

3 NATIONAL ACADEMY OF ENGINEERING MEMBERS

Degree Programs

- Computer Science B.S., M.S., Ph.D.
- Information Technology B.S.
- Big Data Analytics Ph.D.
- Computer Vision M.S.
- Cyber Security and Privacy M.S.
- Data Analytics M.S.
- Data Science B.S.
- Digital Forensics M.S.
- Financial Technology M.S.
- Robotics and Autonomous Systems M.S.

CS.UCF.EDU

FACULTY AWARDS AND HONORS IN 2024

Carolina Cruz-Neira was inducted to into the inaugural Augmented World Expo XR Hall of Fame for her pioneering work in virtual reality and interactive visualization.

Kevin Moran won the ACM SIGSOFT Early Career Award for outstanding contributions to improving mobile applications.

Mubarak Shah received the Undergraduate Research Faculty Mentoring Award from the Computer Research Association Committee on Education, as well as UCF's Award for Faculty Excellence for Mentoring Postdoctoral Students.

Yan Solihin was honored by the Association for Computing Machinery Special Interest Group in Microarchitecture with the Distinguished Service Award.

Damla Turgut was named a Pegasus Professor, the highest faculty honor awarded by the University of Central Florida. She was also elected to the IEEE Computer Society Board of Governors.

IN THE NEWS *scan the QR code for the full story*

UCF Develops AI-driven Tech for Agriculture
The USDA has funded UCF's AI-driven technologies that aim to improve the industry's field operations.

UCF Digital Forensics Program Ranks Among Top in Nation
The online M.S. in Digital Forensics was ranked No. 23 by *U.S. News and World Report*.

Cyber Team Wins 6th National Championship
In all, UCF cybersecurity teams have earned 87 first place, 29 second place and 25 third place awards.

Programming Teams Shine at World Finals
UCF demonstrated its prowess on the world stage for the 12th consecutive year at the International Collegiate Programming Contest.

THE UNIVERSITY OF CHICAGO | DEPARTMENT OF COMPUTER SCIENCE

2023-2024 Year In Review

Research Areas

- AI & Machine Learning
- Computing Education
- Data & Databases
- Human Computer Interaction
- Programming Languages
- Scientific & High Performance Computing
- Security & Privacy
- Systems, Architecture, & Networking
- Theory
- Visual Computing

242 PhD Students

541 CS Majors

51 Tenure-Track Faculty

The CS Department has grown our faculty **290%** since 2013, with **51 tenure-track faculty** in 2023; increased the number of undergraduate **CS majors tenfold**; and **tripled the size of our PhD** student population.

Faculty Highlights

Aloni Cohen- Best Paper, UIST 2024
Ben Zhao- TIME Magazine AI100 Most Influential in AI List
Bo Li- Outstanding Paper Award, NeurIPS 2023
Fred Chong- Quantrell Award for Teaching 2023
Haifeng Xu- Best Paper, Web Conference 2024
Haifeng Xu- AI2050 Early Career Fellow 2024
Ian Foster- HPCWired 35 Legends List 2024
Nick Feamster- Comcast Research Award 2024
Pedro Lopes- Best Paper Award, CHI 2024
Rana Hanocka- Prof. A. Pazy Award 2023
Rana Hanocka- Frontiers of Science Award 2024
Rebecca Willett- SIAM Data Science Career Prize 2024

2024 CAREER AWARDS

Raul Castro Fernandez
Sarah Sebo
Yanjing Li

Major Research Initiatives

The University of Chicago's Department of Computer Science continues to lead groundbreaking research across diverse fields, securing major funding to tackle global challenges. Our faculty are key contributors to the NSF AI Institute with **ACTION**, advancing human-centered AI research; the **NSF Expedition** grant focused on **Computational Decarbonization of Societal Infrastructures at Mesoscales**, driving sustainable solutions for critical infrastructure; the **NSF-Simons AI Institute SkAI** project, pushing the boundaries of AI research; and the **NSF-Simons National Institute for Theory and Mathematics in Biology**, advancing computational methods to solve complex biological problems.

Student Highlights

5 Siebel Scholars

4 CRA Undergrad Research Award Honorable Mentions

3 Forbes 30 Under 30

2 NSF Graduate Research Fellowships

1 MIT Technology Review Innovator of the Year

School of
Information Technology
Experience+
Collaborate | Innovate | Apply

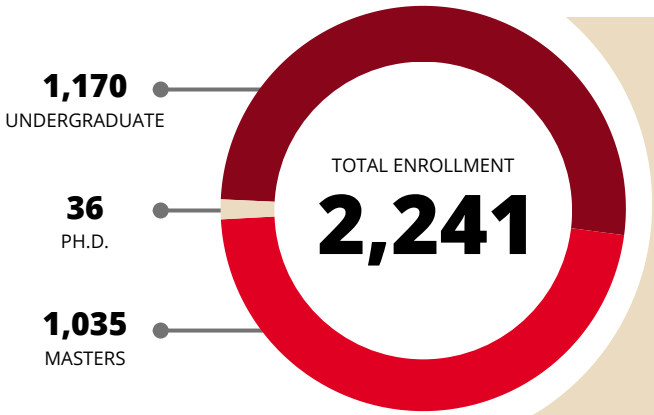
2023 - 2024

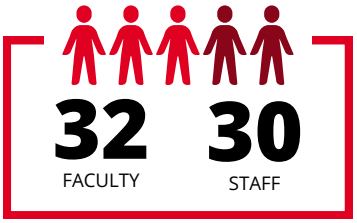
THE SCHOOL OF INFORMATION TECHNOLOGY AT *THE UNIVERSITY OF CINCINNATI*

Where people meet, ideas evolve, and where the future is made.

Highlights

In the 2023-2024 school year, the School of Information Technology made significant strides building up their Cybersecurity degree, continuing expansion of the Ohio Cyber Range Institute, and securing external funding. In addition, the Early IT initiative graduated its first cohort, expanded partnerships across the state, and was approved by the State to qualify high school teachers for the computer science endorsements. SoIT's focus on strategic partnerships, co-op opportunities, and industry collaborations aims to drive innovation, academic excellence, and career readiness for students. The SoIT successfully hired six new faculty members and 20 staff members to support the academic and research growth.





External Funding

$5 Million

Academic Programs

- Bachelor of Science in Information Technology
- Bachelor of Science in Cybersecurity
- IT Accelerated Masters of Science Information Technology
- IT Accelerated Masters of Instructional Design and Technology
- IT Accelerated Masters of Health Informatics Program
- IT Accelerated Masters of Business Administration Program
- IT Accelerated Masters of Criminal Justice Program
- Masters of Science Information Technology
- Information Technology Ph.D. Program

US News & World Report Ranks SoIT

#10 Best Online Computer Information Program

#6 Best Online Computer Information Program for veterans

Computer Science

at the University of Colorado Boulder

Welcoming New Faculty Thought Leaders

Fruzsina Agocs
Assistant Professor,
Numerical Analysis

Ramin Ayanzadeh
Assistant Professor,
Quantum Computing

Mona ElHelbawy
Associate Teaching
Professor, CS Post-Bacc

Curry Guinn
Associate Teaching
Professor, CS Post-Bacc

Esther Rolf
Assistant Professor,
Geospatial Machine
Learning

16

CAREER Awards since 2015

Including 2024 recipient:

Christoffer Heckman

Radar-based Perception and Navigation
in Visually Degraded Environments

#16

Among public undergraduate programs

#20

Among public graduate programs

U.S. News and World Report, 2025

Learn more

Orit Peleg

Orit Peleg recognized as Schmidt Sciences Polymath

Orit Peleg, associate professor of computer science and Biofrontiers Institute faculty member at CU Boulder is one of six researchers recognized for their boundary-pushing work by the prestigious Schmidt Sciences Polymath Program.

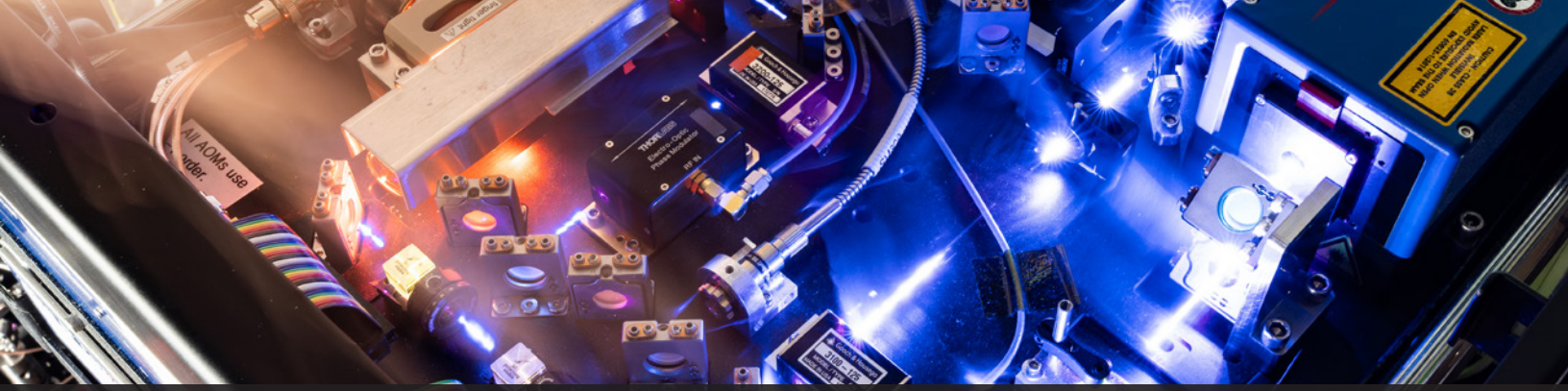
She will receive up to $2.5 million over five years, joining a global community of 21 Polymaths from six countries.

Research highlights

» Computer Science professor Sangtae Ha and colleagues have standardized the CUBIC TCP specification, which ensures that each internet connection receives the appropriate data rate while preventing traffic congestion on the network. To date, CUBIC has been adopted as the default TCP congestion control algorithm in the Linux, Windows, and Apple stacks.

» Computer Science professor Dan Larremore's research group is part of a 5-year, $27.5M project "Center for Implementation in Outbreak Analytics and Disease Modeling: Multi-Scale Outbreak Decision-Support Tools" that involves universities, municipal and state governments, public health partners, and industry.

University of Colorado **Boulder**



Electrical, Computer & Energy Engineering

at the University of Colorado Boulder

$15.1 Million
Research Funding

12
NSF CAREER Award Recipients

Faculty Research Highlights

Secure Computer Architectures (NSF)
Seeks innovative solutions to enhance security and privacy in modern computer architectures by prioritizing security from the hardware level up, ensuring robust protection of user data alongside performance.

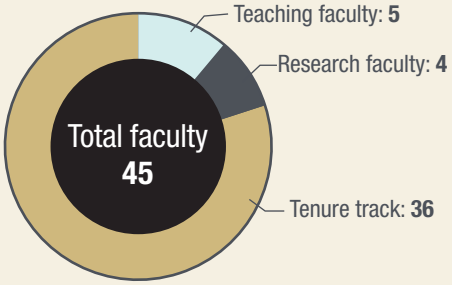
GHOST: 5G Hidden Operations through Securing Traffic (NSF)
Develops advanced security technologies using Trusted Execution Environments to protect end-user devices and obscure communications on potentially compromised 5G networks, enabling secure operations for U.S. government, humanitarian organizations and private enterprises.

Standard Security Metric Definition for Hardware Design (ONR)
Aims to establish standardized methods for measuring and simulating hardware security, enabling a fundamental shift in computer architecture research to prioritize security as a key design requirement while evaluating performance and security trade-offs.

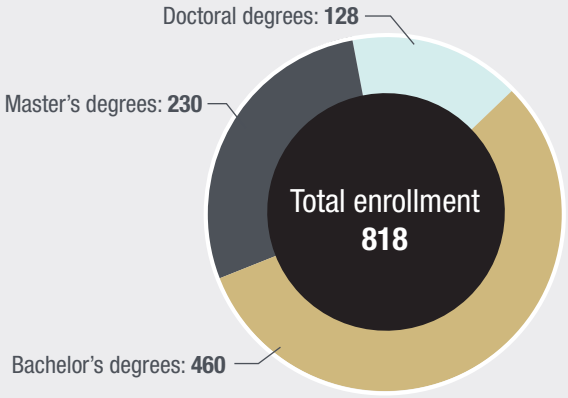
Undergraduate and graduate programs top 20 nationally among public universities *U.S. News & World Report 2025*

16th	16th	18th
Undergraduate	Graduate	Graduate
Electrical engineering	Computer engineering	Electrical engineering

Faculty



Student Enrollment



Degree Programs

- Bachelors of Science in Electrical Engineering
- Bachelor of Science in Electrical & Computer Engineering
- Bachelor's-Accelerated Master's
- Master of Science in Electrical Engineering
- Professional Master's
- Graduate Certificates
- Doctor of Philosophy

Faculty Awards

- American Physical Society
- National Academy of Inventors
- National Academy of Engineering
- IEEE Fellow
- IEEE Senior Fellow
- International Society for Optics and Photonics
- Lockheed Martin Fellow
- Optica Fellow

Learn more

University of Colorado **Boulder**

COLLEGE OF ENGINEERING

COMPUTER AND INFORMATION SCIENCES

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DEPARTMENT AT-A-GLANCE

31* TENURE-TRACK FACULTY
52% NSF CAREER awardees

8 CONTINUING-TRACK (TEACHING) FACULTY

$14M *NEW RESEARCH FUNDING*
(1/1/24–9/1/24)

CELEBRATING 60 YEARS
1964—2024

**includes 5 joint faculty with at least 10% appointment in CIS*

CURRENT ENROLLMENT

Undergraduate

BS Computer Science	564
BA Computer Science	84
BS Information Systems	25
Total	673

(+9.8% over 2023)

Graduate

PhD Computer Science	111
PhD Bioinformatics Data Science	30
MS Computer Science	26
MS Bioinformatics Data Science	63
Total	230

(+17.6% over 2023)

CSRankings, *USA 2014-2024*

All areas	#63
Computer Science Education	#8
Logic & verification	#23
Embedded & real-time systems	#24
Robotics	#25
High-performance computing	#32

U.S. NEWS & WORLD REPORT, *Computer Science Rankings*

Best Undergraduate Program	#87
Best Graduate Schools	#70

NEW HIRES



Dong Dai, *Associate Prof., High Performance Computing*

Yixiang Deng, *Assistant Prof., AI & Scientific Computing*

John Aromando, *Lecturer, CS Education*

SELECTED RESEARCH AWARDS

PI, Title, Amount (UD/Total), Agency

Sunita Chandrasekaran (PI), Rudolf Eigenmann (co-PI), and other UD faculty. *SCIPE: Building a Computational and Data-Intensive Research Workforce & Network in the Mid-Atlantic Region; $4,679,886, NSF*

Xi Peng (PI), Weisong Shi (co-PI), and other UD faculty. *SLES: Orchestrating Model, System, and Hardware for Safe Learning in Autonomous Vehicles; $1,499,949, NSF*

John Aromando (PI), Matthew Mauriello (co-PI), Cory Bart (co-PI), Nazim Karaca (co-PI), and other UD faculty. *Learner-Adaptive, Pedagogical, Interactive Solutions (LAPIS) for using Generative AI to Support Students in Introductory Computer Science; $899,799 , NSF*

Cathy Wu (PI), Chuming Chen (co-PI), and collaborators at the European Bioinformatics Institute and Stanford University. *UniProt Partnerships with Common Fund Data Ecosystem Resources for Protein-Centric Functional Genomics; $1,991,822 (total), $737,010 (UD), NIH*

Xing Gao (PI); *CAREER: Holistic Framework for Securing Continuous Software Development; $636,487, NSF*

Guangmo Tong (PI); *III: Small: Foundations of Query-decision Regression for Social Influence Management; $595,398, NSF*

Xi Peng (PI); *III: CAREER: Advancing Trustworthy Machine Learning for Distributed Scientific Data Analytics; $572,756, NSF*

NAMED PROFESSORSHIP APPOINTMENTS


Weisong Shi,
Alumni Distinguished Professor of Computer and Information Sciences

Sunita Chandrasekaran,
David L. and Beverly J.C. Mills Career Development Chair

NOTABLE SERVICE & HONORS

Sunita Chandrasekaran, Advisory Committee Member, *DOE Office of Science Advanced Scientific Computing, May 2024 – September 2027*

Leila Barmaki, IEEE International Conference on Artificial Intelligence & extended and Virtual Reality 2024, *Honorable Mention Best Paper Award*

Lena Mashayekhy, Program Chair, *8th IEEE International Conference on Fog and Edge Computing*

Weisong Shi, Editor-in-Chief, *IEEE Internet Computing Magazine;* CRA Computing Community Consortium council member, *2024–2027*

Ilya Safro, Co-chair, *Technical Program Committee, Quantum Algorithms track, IEEE International Conference on Quantum Computing and Engineering 2024;* IEEE International Conference on Quantum Computing and Engineering 2024, *Best Paper Award, Quantum Applications track*

COMPUTER & INFORMATION SCIENCE & ENGINEERING

UF | UNIVERSITY of FLORIDA

RESEARCH AREAS

- AI/Machine Learning
- Algorithms
- Bioinformatics
- Cloud Computing
- Computational Geometry
- Computer Vision & Medical Image Computing
- Concurrency, Parallelism, and High-Performance Computing
- Database, Data Science, and Informatics
- Embedded Systems
- Energy-Aware Computing
- Graphics and Visualization
- Human-Centered Computing
- Image and Signal Analysis
- Information Security
- Networking
- Pervasive and Mobile Computing
- Programming Languages
- Software Engineering

Highlights

SOUNDING THE ALARM: UF CYBERSECURITY EXPERT EXPOSES AUDIO DEEPFAKE: Patrick Traynor, Ph.D., outlines what we know about audio deepfake technology and explains some of the research focused on detecting audio deepfakes. Traynor also warns of the dangers of this technology and how to be vigilant when dealing with it.

UNDERWATER DATA CENTERS ARE THE FUTURE. BUT A SPEAKER SYSTEM COULD CRIPPLE THEM: Sara Rampazzi, Ph. D., and her team of cybersecurity and robotics researchers at the University of Florida and the University of Electro-Communications in Japan revealed a critical vulnerability of underwater data centers: sound. However, the scientists also developed a machine learning algorithm that can accurately identify sound attacks, allowing the system to respond before it crashes.

Awards & Recognition

IEEE Senior Member: Christina Boucher, Ph.D.; **ACM Senior Member** Eakta Jain, Ph.D.; **American Academy of Arts and Sciences Member:** Juan E. Gilbert, Ph.D.; **UF AI2 Center AI Educator of the Year:** Sanethia Thomas, Ph.D.

News

UNIVERSITY OF FLORIDA TO STRENGTHEN ITS SPORTS PROGRAM THROUGH AI-POWERED ATHLETICS: The AI-Powered Athletics piece of the initiative is a partnership between the Herbert Wertheim College of Engineering and the University Athletic Association (UAA). The project will help build an infrastructure to enable AI-powered athletics based on the wearable sensor and health data of student-athletes.

WHERE STUDY ABROAD MEETS SERVICE ABROAD: Sanethia Thomas, Ph.D., created a new type of study abroad program that partnered with the Vygrond township, Youth in Transformation, and the Princess Vlei Forum in Cape Town. The idea was to create an internship service project where students would build technology for community organizations that couldn't otherwise afford it.

18 NSF CAREER AWARD WINNERS

3,773 UNDERGRADUATE ENROLLMENT

630 MASTER'S ENROLLMENT

150 PH.D. ENROLLMENT

20 IEEE, ACM, AAAS FELLOWS

51 INVENTION DISCLOSURES SINCE 2017

$24M '23- '24 RESEARCH EXPENDITURE

University of Hawai'i Hilo
Computer Science

University of Hawaii at Hilo Computer Science

Young Faculty Highlights

Winston Wu

Winston Wu is an assistant professor of computer science and the department's newest hire. His research interests are in natural language processing and machine learning. He is the PI on a $300K NSF grant in collaboration with UH Hilo's College of Hawaiian Language to develop language technologies to support the revitalization of the Hawaiian language.

Travis Mandel

Travis Mandel is an associate professor of computer science at the University of Hawaii at Hilo. He earned an NSF CAREER award to investigate human-in-the-loop AI. Additionally, he currently serves as data science program coordinator, leading the university's brand new interdisciplinary Bachelor of Science in Data Science degree program.

Stats

80
Computer Science Majors

15
Degrees Awarded Yearly

16:1
Student/Faculty Ratio

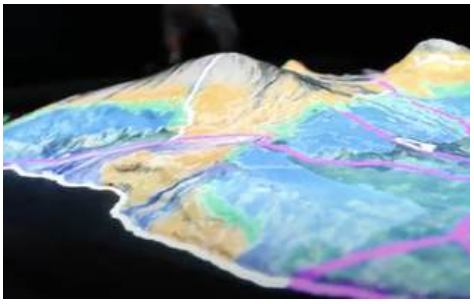
UH Hilo Computing Highlights

- UH Hilo is a designated minority-serving institution (AANAPISI, ANNH)
- Located on the "living laboratory" of Hawai'i, the Big Island
- B.S. degrees in Computer Science and Data Science
- Small class sizes
- State-of-the-art visualization laboratory
- Ample opportunities for undergraduate research participation

Research Highlights

Coral reef fish counting algorithm in action, developed by Travis Mandel and undergraduate CS students. The development of this AI algorithm was recently published in Pattern Recognition.

Hawaii Coral Reef museum VR visualization developed by Francis Cristobal (CS) and John Burns (Marine Science) with undergraduate CS students. Awarded "Top VR Showcase" at ACM-PEARC 2020.



Hawaii Island augmented reality table. Real-time data is overlaid on a 3D-printed terrain, which displays information on soil, endemic species habitat, flood zones, cultural heritage sites, urban centers, and other visualization layers.

Inquiries, Dr. Michael Peterson, Chair **mrp2@hawaii.edu**

UNIVERSITY OF ILLINOIS CHICAGO

COMPUTER SCIENCE
CS.UIC.EDU

World-class research. World-changing dedication to equity.

The computer science department at the University of Illinois Chicago makes two defining contributions to the CS landscape: generating new research knowledge that will advance the field—especially in our focus areas of AI, Natural Language Processing and machine learning, security, data visualization, high-performance computing, and theory—and developing the next generation of professionals and scholars who increase diversity in CS and provide representation for all.

Increasing the diversity of the computer science workforce

In 2016, UIC was designated as a **Hispanic-Serving Institution** by the U.S. Department of Education after receiving a five-year, $5.3 million grant for an initiative called L@s GANAS to increase the number of Latino and low-income students attaining degrees in STEM fields. UIC CS is home to a vibrant Hispanic CS student organization, LOGICA. And UIC was the first expansion site for **Break Through Tech**, a national program that seeks to increase the proportion of women in tech careers by preparing more women with a CS education today.

FACULTY GROWTH

FEATURED FACULTY

AI/NLP/ML


Lu Cheng


Cornelia Caragea


Ian Kash


Bing Liu


Natalie Parde


Sathya Ravi


Wei Tang


Philip Yu


Xinhua Zhang


Elena Zheleva


Brian Ziebart

DATABASES


Abolfazl Asudeh


Boris Glavic


Stavros Sintos

HIGH PERFORMANCE COMPUTING


Sidharth Kumar


Zhiling Lan


Michael Papka

SECURITY


Anrin Chakraborti


Chris Kanich


Jason Polakis

DATA VISUALIZATION


Liz Marai


Fabio Miranda

THEORY


Anastasios Sidiropoulos


Xiaorui Sun

Contact: Robert H. Sloan, PhD, Professor and Department Head | sloan@uic.edu | (312) 996-2369

ILLINOIS GRAINGER ENGINEERING

Siebel School of Computing and Data Science

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Nancy M. Amato
School Director

#5
Undergraduate Program Ranking

#5
Graduate Program Ranking

20+
Degree Options

20K+
CS Alumni

FALL 2024

5,600+ Students
2,716 Total Undergraduate Students
1,267 CS Undergraduates
1,449 CS + X Students

2,946 Total Graduate Students
2,358 Master's Students
578 Doctoral Students

130+ Faculty Members
16 New Faculty (2024)

$35.5M
FY23 Research Expenditures

Research Areas

- Architecture, Compilers, and Parallel Computing
- Artificial Intelligence
- Bioinformatics and Computational Biology
- Computers and Education
- Data and Information Systems
- Interactive Computing
- Programming Languages, Formal Methods, and Software Engineering
- Scientific Computing
- Security and Privacy
- Systems and Networking
- Theory and Algorithms

Siebel School of Computing and Data Science

*Established July 2024, with a **$50M** gift from alumnus Thomas M. Siebel*

siebelschool.illinois.edu

The Grainger College of Engineering
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

ILLINOIS GRAINGER ENGINEERING

Electrical and Computer Engineering

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Jennifer Bernhard
Department Head

#5
Undergraduate Program Ranking Computer Engineering

#5
Undergraduate Program Ranking Electrical Engineering

#4
Graduate Program Ranking Computer Engineering

#4
Graduate Program Ranking Electrical Engineering

$50M+
FY23 research expenditures

Research Areas

- Biomedical imaging, bioengineering, and acoustics
- Circuits
- Communications and control
- Computing systems hardware and software
- Data science and signal processing
- Electromagnetics, optics, and remote sensing
- Micoelectronics and photonics
- Nanotechnology
- Networking and distributed computing
- Power and energy systems
- Reliable and secure computing systems

Recent Achievements & Honors

- ECE welcomes new department head Jennifer Bernhard
- Four faculty received NSF CAREER Awards since 2022
- Shaloo Rakheja awarded $2 million in federal funding to lead the new Illinois Semiconductor Workforce Network
- Led by the ECE Department, a multi-year partnership with Samsung Austin Semiconductor continues to enrich the semiconductor curriculum within ECE and The Grainger College of Engineering
- Radhika Mittal and Rayadurgam Srikant are directing an NSF-funded project to improve microservice-based applications
- Mark Hasegawa-Johnson works with Big Five tech partners to make voice recognition technology more accessible for people with speech disabilities

FALL 2024

2,267 Total Undergraduate Students
1,352 Computer Engineering Majors
915 Electrical Engineering Majors

782 Graduate Students
194 Master's Students
375 Doctoral Students
213 MEng/MEng Online Students

110 Faculty Members
45 IEEE Fellows
12 AAAS Fellows
5 ACM Fellows
5 APS Fellows
NAE Members: 6 active, 15 emeritus

ece.illinois.edu

The Grainger College of Engineering
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

School of Information Sciences
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

The Power of Information

iSchool researchers advance human-centered innovation at the intersection of people, information, and technology.

RESEARCH AREAS

- Data science and data analytics
- Artificial Intelligence
- Machine learning
- Natural language processing and computational linguistics
- Human-computer interaction and user experience
- Privacy, security, trust, and transparency
- Computer-supported cooperative work
- Health, medical, and bio-informatics
- Data curation and information modeling
- Digital libraries and digital humanities
- Computing for the social good

NEW FACULTY

The contributions of the following new faculty will expand the iSchool's research portfolio in areas including but not limited to machine learning, natural language processing, computational analysis, music information retrieval, artificial intelligence, digital humanities, and health informatics.

Kahyun Choi
Assistant Professor

Craig Evans
Lecturer

Yue Guo
Assistant Professor

Yaoyao Liu
Assistant Professor

Ismini Lourentzou
Assistant Professor

RESEARCH HIGHLIGHT

Deepcover to help older adults spot online deception

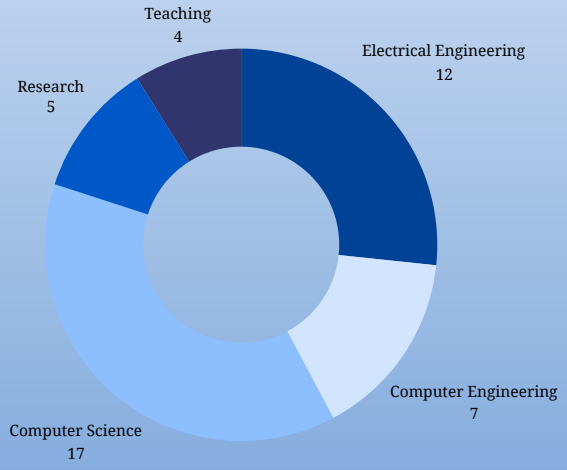
Anita Nikolich, director of research and technology innovation and research scientist, serves as a coprincipal investigator on a $5 million National Science Foundation (NSF) grant to develop tools that will protect older adults against online deception. The result is Deepcover, a free app that provides skills to safely navigate the digital world. **Dan Cermak**, game studies coordinator in Informatics, contributed his expertise in game development. Deepcover is part of the Deception Awareness and Resilience Training (DART) program, an initiative spearheaded by the Center for Information Integrity at the University of Buffalo.

SELECTED GRANTS AND AWARDS

- Associate Professor **Dong Wang** has been awarded a three-year, $599,999 NSF grant for his project, "Crowd-Assisted Human-AI Teaming with Explanations."
- Assistant Professor **JooYoung Seo** has received a four-year, $459,000 NSF grant for his project, "An AudioTactile Data System for Blind or Low Vision Faculty, Staff, Postdocs, and Graduate Students in Chemistry, Math, Computer and Information Sciences."
- Professor **Jingrui He** has been awarded a two-year, $600,000 grant from the IBM-Illinois Discovery Accelerator Institute to improve modeling of climate change and its impact across multiple application domains.
- Associate Professor **Yun Huang** has been named a 2024-2025 Linowes Fellow by the Cline Center for Advanced Social Research at the University of Illinois. She will use the center's data set for her project, "Designing for Clarity: Improving Interpretation of Police Use of Force Data."

KU
THE UNIVERSITY OF KANSAS

Faculty



Faculty Hires

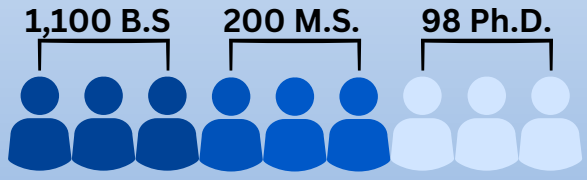
- **Dongjie Wang**, artificial intelligence, causal graph learning, root cause analysis, outlier detection, data mining. Ph.D in Computer Science, University of Central Florida.

- **Rachel Jarvis**, radar systems, wideband radar cross section measurements, biomedical imaging radar, propagation through non-homogeneous media. Ph.D. in Electrical Engineering, University of Oklahoma.

Student Highlights

- **Emma Nasseri** wins Impact Award from University Blockchain Research Initiative, funded by Ripple
- **Quantum Computing research group** receives Best Poster Award at CQUF'24
- **Women in Computing (KUWIC)** sends 15 of its members to the 2023 Grace Hopper Celebration (GHC) in Orlando, FL.
- **EECS Supercomputing Club** shines in 2024 single-board cluster competition.

Students



Faculty Research Highlights

- Prof. **Suzanne Shontz** received the James Corones Award in Leadership, Community Building, and Communication from the Krell Institute.
- Prof. **Tamzidul Hoque** received $400k NSF grant to address robust measures for hardware security.
- Prof. **Heechul Yun** received $396k NSF grant to improve processing of complex multi-dimensional data
- Prof. **Fengjun Li** lead a $1.5M DoD-funded Virtual Institute to train the next generation of cybersecurity leaders.
- Prof. **Michael Branicky** filled leadership role in national strategic visioning for Artificial Intelligence engineering.
- Prof. **Shima Fardad** received $493k NSF grant to study intricate interactions between light and soft matter.

Department News

- KU EECS Department launched a new B.S. in **Cybersecurity Engineering** in Fall 2023.
- The 2023 KU EECS Distinguished Service (KEDS) Award was received by Prof. **Victor Frost** and Mr. **Michael Oberg** (BSEE, 1972; MSEE 1974).

University of Kentucky

Department of Computer Science

http://www.cs.uky.edu

The Department of Computer Science at the University of Kentucky is one of the oldest CS departments in the country, established in 1966. We offer bachelor's, master's, and Ph.D. degrees in computer science, bachelor's, master's, and Ph.D. degrees in computer engineering (with ECE), and master's in Data Science. Our alumni go on to pursue a variety of careers and are currently succeeding in academia and companies like Google, Amazon, Microsoft, HP and others.

29 Faculty	69 PhD
39 Master's	640 Undergraduates

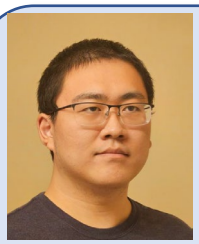
News

Dr. Brent Harrison
Inaugural Director of the AI Certificate

AI Certificate

An undergraduate AI certificate has been launched in Fall 2024. Any undergraduate student from any major at the University of Kentucky can get the AI training by taking the certificate.

New Hires



Dr. Peizhong Ju
Areas: machine learning, smart grid, wireless comm.

Dr. Shixiong Qi
Areas: cloud computing, networking

Dr. C. Seth Parker
Areas: computer vision, machine learning

Recent Research Highlights

9 NSF CAREER Awards

Nine faculty members from our department have received the prestigious NSF CAREER awards. Three recent career awards are:

Dr. Hana Khamfroush: "Integrated and end-to-end machine learning pipeline for edge-enabled IoT systems: a resource-aware and QoS-aware perspective"

Dr. Stephen Ware: "Structured High-Agency Interactive Narratives for Virtual Environments and Using Models of Geo-Temporal Appearance"

Dr. Simone Silvestri: "Energy Management for Smart Residential Environments through Human-in-the-loop Algorithm Design".

Selected Active Awards

Dr. Muhammad Siddique et al: "User-Centric Task-Oriented Dialog Systems via Zero-shot Adaptation and Personalization", NSF 2401685.

Dr. Silvestri et al, "Distributed Edge Intelligence in Support of Next-Generation Applications", NSF 2438581

Dr. James Griffioen et al: "FABRIC Operations - Accelerating Innovation and Research", NSF 2330891.

Dr. Xin Liang,: "Scalable MPI with Adaptive Compression for GPU-based Computing Systems", NSF 2327266.

Dr. Yang Xiao: "An Anti-tracking and Robocall-free Architecture for Next-G Mobile Networks", NSF 2247561.

Dr. James Griffioen et al: "Customized Multi-tier Assistance, Training, and Computational Help for End User ACCESS to CI", NSF 2138286.

Dr. W. Brent Seales et al: "EduceLab: Infrastructure for Next-Generation Heritage Science", NSF 2131940.

COLLEGE OF SCIENCES

SCHOOL OF COMPUTING AND INFORMATICS

CONTACT US: 334-482-6768
CMIX.LOUISIANA.EDU
SCIENCES.LOUISIANA.EDU
LOUISIANA.EDU

DEPARTMENT AT-A-GLANCE

21 TENURE-TRACK FACULTY

7 CONTINUING-TRACK (TEACHING) FACULTY

$12 Million NEW RESEARCH FUNDING

CELEBRATING 17 YEARS
2007 - 2024

CURRENT ENROLLMENT

Undergraduate

BS Computer Science	550
BS Informatics	149
Total	**699**

Graduate

MS Computer Science	41
MS Informatics	113
MS Computer Engineering	4
PhD Computer Science	63
PhD Computer Engineering	20
Total	**241**

CS Rankings, USA 2021-2024

All areas	#100
Human-Computer Interaction	#88
Visualization	#35
Computer Architecture	#73
Computer Security	#97
Design Automation	#40
Programming Languages	#54

U.S. News & World Report,

Computer Science Rankings

Best Undergraduate Program	#162
Best Graduate Program	#148

Computer Engineering Rankings

Best Graduate Program	#102

SELECTED RESEARCH AWARDS

Dr. Sheng Chen:
Sun, K., Wang, D., Chen, S., Wang, M., & Hao, D. (2024). *Formalizing, Mechanizing, and Verifying Class-Based Refinement Types. In 38th European Conference on Object-Oriented Programming (ECOOP 2024).* Schloss Dagstuhl–Leibniz-Zentrum für Informatik.

Dr. Aminul Islam:
BoRSF Research Competitiveness Subprogram (RCS); *Improving the Training Time and Learning Capacity of a Deep Learning Model;* 06/01/2023 - 06/30/2026; Total Funding: US$149,351; PI: Aminul Islam

Dr. Arun Kulshreshth:
Louisiana Board of Regents (BORSF) ITRS Grant for the proposal "*Collaborative Tools for Scouting Locations in Virtual Reality*", $311,010: Dr Arun Kulshreshth (PI), and Dr. Christoph Borst (co-PI) (2024-2027).
Louisiana Board of Regents (BORSF) ENH Grant; Dr. Hung - Chu Lin (P I, Psychology), Dr. Christoph Borst (co-PI), Dr. Arun Kulshreshth (co-PI), and Dr. Heather Stone (co-PI, Education), $75,540.

Dr. Li Chen:
National Science Foundation "*RII Track - 4: HEAL: Heterogeneity - aware Efficient and Adaptive Learning at Clusters and Edges*" , PI: Li Chen, $282,361, 2024 - 2026.
Louisiana Board of Regents (PI, $307,109), Industrial Ties Research Subprogram (ITRS) , "*Federated Deep Learners for Medical Image Analysis and Treatment Guidance*" , PI : Li Chen, $307,109; 2024 - 2027.

Dr. Mehmet Tozal:
MITRE - 1161269 *Exhibit A-2: Predictive Link Analyses in Computer Network Domains*; 3/01/2024 - 12/31/2024 Amount: $39,000; PI: Mehmet E Tozal
MITRE - 1161269 *Exhibit A-1: Predictive Link Analyses in Computer Network Domains*; 2/13/2023 - 12/31/2023 Amount: $225,000; PI: Mehmet E Tozal

Dr. Xiali Hei:
National Science Foundation *"SaTC: CORE: Small: Mitigating Threats of Physical - Domain Signal Injections on Security, Reliability, and Safety of Sensing and Control Systems"*; (PI $599,984),7/1/2023-6/30/2026.

NOTABLE HONORS

Dr. Sercan Aygun:
- Best Poster Award, ACM Great Lakes Symposium on VLSI, Tampa, FL, USA
- Turkish Academy of Sciences First Rank PhD Award, September 2024.

Dr. Xiali Hei
- Distinguished Paper Award, IEEE Symp. on Security and Privacy, Oakland, CA, 2024
- Best Paper Award, EAI SmartSP'23, Chicago, IL

NAMED PROFESSORSHIP APPOINTMENTS

Dr. Martin Margala
Endowed Chair of Computer Science Eminent Scholar

Dr. Christoph Borst
Hardy Edmiston Endowed Professor in Computer Science II

Dr. Sheng Chen
Lockheed Martin/BORSF Endowed Professor

Dr. Chee-Hung Henry Chu
Lockheed Martin/BORSF Endowed Professor

Dr. Xiali Hei
Alfred and Helen M. Lamson/BORSF Endowed Professor

Dr. Aminul Islam
Hardy Edmiston Endowed Professor in Computer Science I

Dr. Arun Kulshreshth
Francis Patrick Clark/BORSF Endowed Professor

Dr. Arun Lakhotia
Lockheed Martin/BORSF Endowed Professor

Dr. Michael Totaro
Francis Patrick Clark/BORSF Endowed Professor

Dr. Mehmet Tozal
Francis Patrick Clark/BORSF Endowed Professor

Dr. Nian-Feng Tzeng
Endowed Chair of Computer Science Eminent Scholar

Dr. Li Chen
Alfred and Helen M. Lamson/BORSF Endowed Professor

Dr. Beenish Chaudhry
Cynthia Baillio Hartgerink/BORSF Endowed Professor

Dr.Hsiu-Yueh Hsu
Francis Patrick Clark/BORSF Endowed Professor

Dr. Shuvalaxmi Dass
Francis Patrick Clark/BORSF Endowed Professor

NEW HIRES

Dr. Sercan Aygun
Assistant Professor
Emerging Computing

Dr. Shuvalaxmi Dass
Assistant Professor
Software Security

Dr. Min Shi
Assistant Professor
Medical Data Mining/AI

Dr. Hao Zheng
Assistant Professor
Computer Vision/AI

Dr. Nicholas G. Lipari
Instructor

COLLEGE OF INFORMATION

INFO.UMD.EDU | @INFOCollegeUMD

REBRAND

This year, the University of Maryland **College of Information** (UMD INFO) is excited to celebrate its new name, effective June 2024–formerly the College of Information Studies. This new name reflects the growing breadth of the college's impact in research and education. INFO is at the forefront of the issues of today's information age, with transformational research and top-ranked, forward-looking educational programs.

NEW FACULTY

Jessica Grimmer
Lecturer
Digital Collections

Francesca Polito
Lecturer
UX & Human-Centered Design

Stacy Surla
Lecturer
UX & Human-Centered Design

Jieun Yeon
Assistant Professor
Library Governance

Angela Rodgers-Koukoui
Lecturer
Archives Literacy

ACADEMICS BY THE NUMBERS

2800+
students from **63 countries** around the world

7
graduate programs
6 masters, 1 PhD
(4th largest masters population at UMD)

3
undergraduate programs
(2nd largest undergraduate population at UMD)

32%
of undergraduates are **first generation**

45%
of students identify as **female**

63%
of students identify as
Asian (28%)
Black (23%)
Hispanic/Latino (8%)
American Indian or Alaskan Native (<1%)
Pacific Islander (<1%)
Biracial (4%)

RESEARCH

50
funded research projects

$33.8M
in research funding

AY 23-24

FEATURED PROJECTS

Empowering Student Athletes with Data (DataGOAT): $3.4M NSF, Tammy Clegg, Sheena Erete, Dan Greene, Jason Aston, and Carol Boston. Developing courses for student-athletes to co-design new sports data technology and learn about data science through sport.

Institute for Trustworthy AI In Law and Society (TRAILS): $20M NSF, Katie Shilton Co-PI. Investigating AI solutions that build trust and which policy models are effective in sustaining trust.

Making Tech Accessible for People with Disabilities (TraceRERC): $4.6M US Dept of Health and Human Services, J. Bern Jordan, Hernisa Kacorri, and Amanda Lazar. Leveraging tech, gen-AI, and co-design to improve user control and reduce tech barriers.

Connecting Indigenous Archives Worldwide (Indigenize SNAC): $496K IMLS, Diana Marsh. Connecting Native and Indigenous collections and making them searchable across institutions and the world.

Enhancing Team Performance During Spacewalks: $262K NASA, Susannah Paletz. Improving teamwork, information sharing, and effectiveness of increasingly distributed teams that direct astronauts during spacewalks.

FEATURED RESEARCH GROUPS

Maryland Initiative for Digital Accessibility (MIDA): Collaborating with disability communities such as the National Federation of the Blind, tech companies such as Adobe, and government agencies such as the U.S. Access Board to make technologies accessible for people with disabilities.

Center for Archival Futures (CAFe): Developing human-centered approaches to the use and care of digital objects and data over time. Working with partners such as the National Park Service and National Agricultural Library to solve digital curation challenges.

Human Computer Interaction Lab (HCIL): Transforming the experience people have with new technologies through understanding user needs, reimagining user interfaces, and advancing design methodology. With UMD researchers from Information, Computer Science, American Studies, Education, English, Journalism, and Psychology.

Advanced Information Collaboratory (AIC): Advancing the growing field of computational archival science. Applying new technology, ML, and AI to increase capabilities of extracting information from massive stores of records and provide solutions for increasingly complex records systems and workloads.

Be the Future.

DEPARTMENT OF COMPUTER SCIENCE

www.cs.umd.edu

11TH IN THE NATION

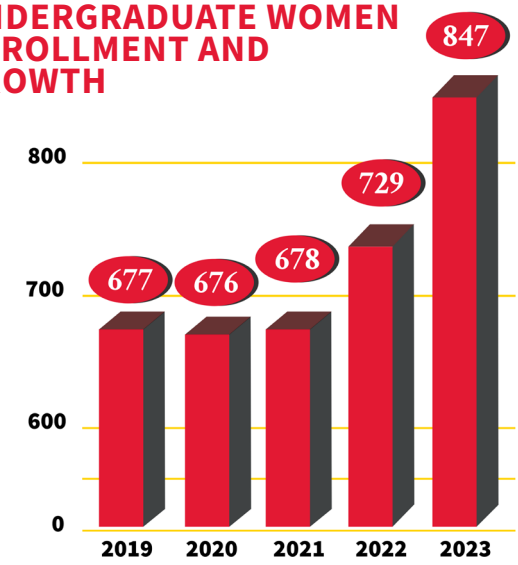
BEST PUBLIC UNDERGRADUATE PROGRAMS

U.S. News & World Report, 2024 - 2025

FACULTY HIRES IN 2024

Nora Burkhauser - M.Ed., Lehigh University
Ruohan Gao - Ph.D., University of Texas at Austin
Mohit Iyyer - Ph.D., University of Maryland College Park
Ting Jiang - Ph.D., University of Georgia
Binghui Peng - Ph.D., Columbia University
Han Shao - Ph.D., Toyota Technological Institute, Chicago
Runzhou Tao - Ph.D., Columbia University
Fumeng Yang - Ph.D., Brown University
Yaodong Yu - Ph.D., UC Berkeley

UNDERGRADUATE WOMEN ENROLLMENT AND GROWTH



22.74% Women

NEW **AIM** ARTIFICIAL INTELLIGENCE INTERDISCIPLINARY INSTITUTE AT MARYLAND

Led by CS Faculty **Hal Daumé III**

RECENT FACULTY AWARDS

Professor Andrew Childs leads **$25M NSF Quantum Leap Challenge Institute for Robust Quantum Simulation**

Assistant Professor Christopher Metzler received an **Army Research Office (ARO) grant to advance long-range imaging with machine learning**

Assistant Professor Laxman Dhulipala was honored with the **ACM Kanellakis Award**

Assistant Professor Ian Miers received the **Test of Time Award at the IEEE Security Symposium**

Associate Professor Abhinav Bhatele received the **University of Illinois Early Career Alumni Award**

Assistant Professor Rachel Rudinger received the **NSF CAREER Award for her work in large language models (LLMs)**

Principal Lecturer Emerita Jan Plane won the **ACM SIGCSE Award for Broadening Participation in Computing Education**

Professor Dinesh Manocha was inducted into the **IEEE VGTC Virtual Reality Academy**

Professor Mohammad Hajiaghayi and **Associate Professor Soheil Feizi** received a **Department of Defense MURI Grant**

Professor Hal Daume leads **$20M NSF Institute for Trustworthy AI in Law & Society (TRAILS)**

Associate Professor Abhinav Bhatele won the **IEEE Technical Committee on Scalable Computing Award**

Assistant Professor Christopher Metzler received the **NSF CAREER Award to advance computational imaging**

Professor Dinesh Manocha was named a **National Academy of Inventors Fellow**

Professor Hanan Samet was honored with the **ACM SIGSPATIAL Lifetime Impact Award**

Associate Professor Abhinav Bhatele and **Professor Tom Goldstein** won the **DOE's Innovative and Novel Computational Impact on Theory and Experiment (INCITE) Award**

Associate Professor Furong Huang received the **Microsoft Accelerate Foundation Models Research Award**

Assistant Professor Bahar Asgari earned the elite **NSF Principles and Practice of Scalable Systems Award for advancing high-performance computing**

STUDENT ACCOMPLISHMENTS

Ph.D. student Daniel Nichols was awarded the **2024 ACM-IEEE CS George Michael Memorial HPC Fellowship**

Colin Galen, **Shayan Chashm Jahan**, **and Cheng-Yuan Lee** earned **bronze at the International Collegiate Programming Contest North America Championship and advanced to the World Finals.**

Ph.D. student Isabelle Rathbun received a **Department of Defense Fellowship for her work in AI and sensor fusion**

Ph.D. student Sanjaya Herath received the **SMART Scholarship**

Undergraduate student Harshita Kalbhor won the **2024 Gordon Prize for managing cybersecurity resources**

M.S. student Sadia Nourin was awarded the **2024 National Science Foundation Graduate Research Fellowship**

Undergraduate students George Li and Aditya Ranjan received the **CRA's Outstanding Undergraduate Researcher Award**

Ph.D. student Songwei Ge received the **NVIDIA Graduate Fellowship**

FOR MORE UPDATES FOLLOW US AT *UMDCS*:

UMBC

DEPARTMENT OF COMPUTER SCIENCE & ELECTRICAL ENGINEERING

WELCOME OUR NEW FACULTY


Keke Chen
Associate Professor


Shane Donahue
Lecturer


Enis Golaszewski
Lecturer


Zeynep Kacar
Lecturer


Taylor Kidd
Professor of the Practice


Dong Li
Assistant Professor


Sanaa Mironov
Lecturer


Samit Shivadekar
Lecturer

STUDENT ENROLLMENT

3,373

- 2,145 Undergraduate
- 874 Masters
- 154 Doctoral

NEW Cybersecurity M.S.

DEGREES AWARDED

912

Most undergrad degrees at UMBC

- 348 Bachelors
- 549 Masters
- 15 PhD

OUR FACULTY

102

16 NSF CAREER Award Recipients

- 63 Full Time Faculty
- 39 Tenured/Tenure Track Faculty

NEW RESEARCH CENTERS

BRAIN Center

Building Reliable Advances and Innovations in Neurotechnology

$1.5M from NSF


(Photo courtesy of NSF BRAIN IUCRC UMBC)

CREM

Center for Research in Emergent Technology

$6M from D.O.D

(Marlayna Demond '11/UMBC)

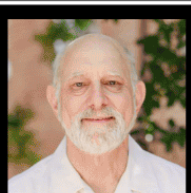
CENTAUR

Center for Navigation, Timing & Frequency Research

$3M from U.S. Army


(Marlayna Demond '11/UMBC)

CSEE FACULTY HIGHLIGHTS


Dr. Curtis Menyuk wins SPIE G. G. Stokes Award


Dr. Tülay Adali elected as EoC for IEEE Signal Processing Mag.

UMBC | R1 DOCTORAL UNIVERSITY

https://www.csee.umbc.edu/

2024-2025

UMBC | DEPARTMENT OF INFORMATION SYSTEMS

BY THE NUMBERS

- 43 FACULTY MEMBERS
- 9 PROGRAMS OFFERED
- 2200+ STUDENTS
- 13K+ ALUMNI
- 6 FACULTY LED RESEARCH CENTERS
- 5 CERTIFICATES OFFERED

ONLINE MS PROGRAM RANKED #34 IN U.S. NEWS

RESEARCH AREAS

ARTIFICIAL INTELLIGENCE

COMPUTING EDUCATION

DATA SCIENCE

HEALTH INFORMATICS

HUMAN-CENTERED COMPUTING

SOFTWARE ENGINEERING

informationsystems.umbc.edu
informationsystems@umbc.edu

SELECTED FACULTY AWARDS

Dr. Karen Chen received the prestigious NSF career award titled "CAREER: Teaching to Empower with Learning Analytics for College Students by College Students". This is the seventh award in the department.

Drs. Janeja, Komlodi, and Purushotham received a new $750,000 NSF CIRC award for project titled, "Community Infrastructure for Advancing Audio Deepfake Detection."

Dr. Houbing Song is part of a team awarded the NASA Data Analytics and Technical Support Services (DATSS II) contract. DATSS II is a five-year, multiple-award vehicle with a ceiling amount of $115 million.

Dr. Foad Hamidi is part of a team awarded $1.7M for a project titled, "Introducing Synthetic Biology Using Co-Designed, Culturally Responsive BioMaker Activities for Family Engagement in Underserved Communities"

Dr. Karuna Joshi is a part of a team awarded $950,000 from the NSF FDT-Biotech grant for a project titled, "Aspects of Digital Twin Studies for Neuroimages."

Drs. Stockwell, Reynolds, Foulds, and Gani received a $3.4M NIH R01 grant for a project titled, "The Development, Implementation, and Evaluation of a Social Engagement Support System."

STUDENTS IN THE NEWS

Misan Ayomike, was profiled about economics internship with Pietro Veronesi, a preeminent economist and a dean at the University of Chicago Booth School of Business

Leonard Traeger, Ph.D. '25, information systems, recently won the Best Paper Award at the International Conference on Enterprise Information Systems (ICEIS)

Leah Narat '24, business technology administration, lands elite NASA internship in business intelligence

UMassAmherst | Manning College of Information & Computer Sciences

COMPUTING *for the* **COMMON GOOD™**

cics.umass.edu

Fall 2024

NEW FACULTY HIRES

Four recent faculty hires signal continued growth in core research areas and an investment in new interdisciplinary academic programs focusing on public interest technology.

Hedyeh Beyhaghi
Assistant Professor
Theory
Started Fall 2024

Nikko Bovornkeeratiroj
Teaching Faculty
Started Fall 2024

Madeline Endres
Assistant Professor
Software Engineering
Starting Spring 2025

Emily Nutwell
Public Interest Technology Pathways Director
Started Summer 2024

A NEW BUILDING FOR THE FUTURE OF COMPUTING

Construction is underway on a new integrated academic and research space for the Manning College of Information and Computer Sciences that will serve as a hub for learning, innovation, and community. The 90,000 square foot facility is set to open in summer 2025.

Learn more and explore: **cics.umass.edu/building**.

BY THE NUMBERS

Top 10 in Key Areas:
#9 in Artificial Intelligence
3rd in Mobile Computing
5th in Performance Analysis
6th in Information Retrieval
9th in Software Engineering
CSRankings

#24
in Computer Science overall
U.S. News & World Report - Graduate School Rankings, 2024

1,737
Undergraduate enrollment

635
Master's enrollment

340
Doctoral enrollment

$27.1M
New research awards in FY23

$20.4M
Research expenditures in FY23

89
Tenure-stream, teaching, and research faculty

RECENT AWARDS & ACCOLADES

AAAS Fellow: Ramesh Sitaraman

NCWIT Pioneer in Tech: Francine Berman

NSF CAREER Awards: Negin Rahimi, Hui Guan

DARPA Director's Fellowship: Amir Houmansadr

SIGPLAN Distinguished Service Award: Emery Berger

SIGMOBILE 2024 Test of Time: Jie Xiong

eEnergy 2024 Test of Time: Prashant Shenoy

SIGIR 2024 Best Short Paper: Hamed Zamani

SIGCHI 2024 Best Paper: Donghyun Kim

AAAI 2024 Best Paper for AI w/ Social Impact: Subhransu Maji & Daniel Sheldon

IETF/IRTF 2024 Applied Networking Research Prize: Amir Houmansadr

CSAW 2023 Applied Research Competition (1st place): Amir Houmansadr

FOCI 2023 Best Practical Paper Award: Amir Houmansadr

University of Massachusetts LOWELL

UML robotics researchers at Human-Robot Interaction (HRI) 2024

Richard A. Miner School of Computer & Information Sciences

In Fall 2022, UMass Lowell launched a new school of computer science, named in honor of Rich Miner '86, '89, '97, co-founder of Android.

Research Areas

Artificial Intelligence
Biomedical Informatics
Computational Geometry
Computational Social Science
Computer Science Education
Databases and Data Mining
Digital Forensics
Graphics and Visualization
Human-Computer Interaction
Human-Robot Interaction
Machine Learning
Natural Language Processing
Networking
Operating Systems
Programming Languages
Robotics
Security and Privacy
Text Mining and Engineering
Theory and Algorithms

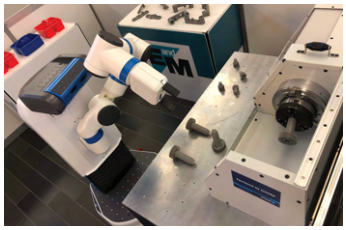
Prof. Tom Wilkes with incoming freshman students in SoarCS program at Red Hat DevConf.US 2024

Prof. Sirong Lin and students at Grace Hopper 2024

Prof. Maru Cabrera with middle school students in RoboXploration camp visiting Amazon Robotics

Facilities

Cyber Security Range: 40 seat lecture theater, 40 workstations, real world security problems simulated in a controlled environment



New England Robotics Validation and Experimentation (NERVE) Center: Humanoids, manipulators, exoskeletons, mobile robots, unmanned aerial vehicles

UMass Lowell CIS by the Numbers

Faculty members	**33**
NSF CAREER awards	**8**
Last 5 years in research expenditures	**$28.8M**
New research awards in FY2024	**$8.6M**
Undergraduate majors, Fall 2024	**1408**
Graduate students, Fall 2024	**363**
Degrees awarded in 2023 - 2024	**401 BS, 116 MS, 7 PhD**

Highlights

Northeast Collegiate Cyber Defense Competition: Cyber Security Club took third place with advisor Prof. Sashank Narain

American Association for the Advancement of Science Fellow: Holly Yanco

Distinguished Paper Award: Shan Wang, Ming Yang, Jiannong Cao, Zhen Ling, Qiang Tang and Xinwen Fu, "CORE: Transaction Commit-Controlled Release of Private Data over Blockchains," IEEE International Conference on Distributed Computing Systems, July 23 – 26, 2024, Jersey City, New Jersey

NSF Award: Anitha Gollamudi, "CRII: SaTC: Enforcing Expressive Security Policies using Trusted Execution Environments," $175K

Office of Naval Research Award: Holly Yanco, Reza Azadeh, and Maru Cabrera, "Long-Term Autonomy for Ground and Aquatic Robotics," $1M

Veterans Adminstration Award: Hong Yu, "Surveillance of Modifiable Social Determinants of Health for Prioritizing Wraparound Supports," $1.1M

Army Research Lab Award: Reza Azadeh, "Adaptively Granularized and Individualized Knowledge Hypergraphs with Human Feedback for Command and Control," $100K

NSF Award: Holly Yanco, "POSE: Phase II: Collaborative Open-source Manipulation Performance Assessment for Robotics Enhancement (COMPARE) Ecosystem," $1.5M

CSE COMPUTER SCIENCE AND ENGINEERING UNIVERSITY OF MICHIGAN

RESEARCH HIGHLIGHTS

A privacy-preserving camera

Researchers led by Alanson Sample have designed a camera that could prevent companies from collecting identifiable photos and videos from smart devices.

Forecasting 'forever chemicals'

Researchers including Elizabeth Bondi-Kelly are working to develop AI tools that can predict PFAS concentrations in U.S. waterways

Protecting self-driving vehicles from hackers

Z. Morley Mao has led creation of a new security system that leverages data sharing between vehicles to detect and counter falsified data.

Leveraging AI to improve surgeon training

Researchers including Xu Wang have leveraged AI techniques to help surgeons create interactive educational videos for trainees.

NEW FACULTY IN 2024

NATHANIEL BLEIER
Assistant Professor

SCOTT DEXTER
Teaching Faculty

KRISZTIÁN FLAUTNER
Professor of Engineering Practice

FARNAZ JAHANBKHSH
Assistant Professor

SURAJ RAMPURE
Teaching Faculty

AMRITA ROY CHOWDHURY
Assistant Professor

MUHAMMAD SHAHBAZ
Assistant Professor

KE SUN
Assistant Professor

KE WU
Assistant Professor

cse.engin.umich.edu

BY THE NUMBERS

- **100** Faculty members
- **11** ACM Fellows
- **7** IEEE Fellows
- **3** AAAI Fellows
- **2** AAAS Fellows
- **9** Sloan Fellows
- **39** NSF CAREER, PECASE, and Young Investigator Awards
- **10** PhD alums recently recruited for higher ed academic positions
- **3500+** Undergraduate students
- **600+** Graduate students
- **$26M+** FY 23/24 research expenditures

HONORS & RECOGNITIONS

IEEE B. Ramakrishna Rau Award; Todd Austin

ACM SIGARCH Maurice Wilkes Award; Reetuparna Das

Herbert A. Simon Prize for Advances in Cognitive Systems; Ben Kuipers

EATCS Presburger Award; Thatchaphol Saranurak

NSF CAREER Awards; Michał Dereziński and Maggie Makar

ICER Lasting Impact Award; Mark Guzdial

ACM SIGMOBILE Test of Time Award; Brian Noble

RESEARCH AWARDS

Best Paper at ACM MMSys for neural-enhanced mobile video streaming; Z. Morley Mao

Best Paper at POPL for development of a method for localizing and recovering from type and type inference errors in programs; Cyrus Omar

Best Paper at SIAM SOSA for using light graph spanners to design more efficient networks; Greg Bodwin

Distinguished Paper at USENIX Security for studying geoblocking in the context of the Cuba embargo; Roya Ensafi and Alex Halderman

Distinguished Paper at USENIX Security for exposing flaws in randomization that put voter's secret ballots at risk; Alex Halderman

Area Chair Award at ACL for structured reasoning in LLMs through improved graphs; Lu Wang

NAACL Social Impact Award for research on cultural biases in LLMs; Rada Mihalcea and Honglak Lee

Best Paper at UIST for live visual description platform for the blind and visually impaired; Anhong Guo

ECE ELECTRICAL & COMPUTER ENGINEERING
UNIVERSITY OF MICHIGAN

ECE.ENGIN.UMICH.EDU

NEW FACULTY

Jun Gao
Associate Professor
Computer Vision and Graphics

Inigo Incer
Assistant Professor
Complex Systems, Cyber-physical systems

Shubhanshu Shekhar
Assistant Professor
Information Theory, Data Science, Machine Learning

Ziyou Song
Assistant Professor
Power Systems

Junyi Zhu
Assistant Professor
Medical sensing devices, Human-Computer Interaction, Computer Engineering

PEOPLE POWERING INNOVATION

Electrical and Computer Engineering at Michigan combines a progressive curriculum and fundamental research with an intellectual community that values diversity, interdisciplinary teamwork, entrepreneurial thinking, and inventiveness. Some of our key areas of impact include: smart electronics; intelligent systems; sustainable energy; information; communications; automation + robotics; and the quantum revolution.

DEGREE PROGRAMS

BSE
- Electrical Engineering
- Computer Engineering

MSE and **PhD**
- Electrical and Computer Engineering

MASTER OF ENGINEERING
- Electrical and Computer Engineering

ONLINE PROGRAMS

CONTINUUM
offering online non-degree courses including Computational Machine Learning and Joy of Coding.

Our degree programs are ranked in the **TOP 10** by *U.S. News & World Report,* joining the **UNIVERSITY OF MICHIGAN'S >100 TOP 10** ranked programs

RECENT COMPUTING NEWS

- $7.5M NSF MURI to rethink game theory in dynamic environments
- ASOFR MURI to understand online and offline social networks
- Leveraging artificial intelligence for early detection of lung cancer
- 14 papers presented at Int. Conference on Machine Learning
- Sensing of animal populations for pandemic prediction
- AI chips could get a sense of time
- Designing cryogenic circuits for quantum computing
- GenAI diffusion models learn to generate new content
- Radar vision for autonomous indoor navigation
- New textbook: *Linear Algebra, Data Science, ML, and SP*
- Bringing the Joy of Coding to Kenya

96 Faculty

751 UG Students (409 CE, 342 EE)

514 Master's Students

272 PhD Students

$54.4M Research

Click on the text for more info about ECE, our new faculty, and recent news

ROBOTICS
UNIVERSITY OF MICHIGAN

Work together. Create smart machines. Serve society.

Housed in the
$75M
Ford Robotics Building, completed in 2021

34
robotics faculty members

$7.4M
research expenditures in 2023, the first year of the department

Research programs
- Artificial intelligence
- Autonomous vehicles and systems
- Human-robot interaction
- Legged robotics
- Manufacturing robotics
- Rehabilitation and medical robotics
- Perception and manipulation
- Soft robotics
- Teams and swarms

Academic programs
Robotics BSE ← *First among top ten engineering schools*
Robotics MS
Robotics PhD

MBot Educational Robotics Ecosystem
Over 300 of these low-cost, adaptable robots helps us teach courses, from undergraduate to graduate level
→ *mbot.robotics.umich.edu*

12 new undergraduate robotics courses developed

7 courses freely available online
- Computational Linear Algebra
- Intro to AI & Programming
- How to Build Robots
- Robot Operating Systems
- Mathematics for Robotics
- Programming for Robotics
- Mobile Robotics

Distributed Teaching Collaborative
a cross-institution effort to co-develop and teach robotics curriculum to students, no matter where they enrolled

2014 year graduate program started

2022 year department founded

Robotics Outreach Ambassadors
a recognition program for students who go above and beyond in community service and inspiring future roboticists

167 undergraduate robotics majors
16 undergraduate alumni

130 Master's students
371 master's alumni

108 PhD students
49 PhD alumni

5 SPIN OFFS led by faculty
- **May Mobility**, driverless transit in communities
- **Voxel51**, computer vision data and modeling
- **Refraction AI**, automated last-mile delivery
- **Precision 3D**, advanced printing
- **NewHaptics**, haptic display for the blind

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robotics.umich.edu

ROBOTICS

SCHOOL OF INFORMATION
UNIVERSITY OF MICHIGAN

si.umich.edu

AREAS OF FACULTY RESEARCH

- Accessibility and Computing
- Archives and Digital Curation
- Artificial Intelligence
- Computational Social Science
- Data Science, Analytics and Visualization
- Educational Technology and Learning Analytics
- Health Informatics
- Human Computer Interaction
- ICTs and Social Change
- Information Economics
- Library and Information Science
- Privacy
- Science, Technology and Society
- Social Media and Social Computing
- Ubiquitous Computing

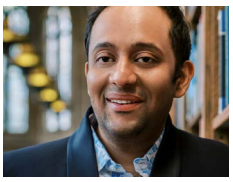
NEW FACULTY IN 2024

Kishonna Gray, PhD, Arizona State University

Jiayu Zhou, PhD, Arizona State University

Rebecca Frank, PhD, University of Michigan

Chelsea Peterson-Salahuddin, PhD, Northwestern University



Venkatesh Potluri, PhD, University of Washington

Karthik Srinivasan, PhD, University of Chicago

‹ Jinseok Kim, PhD, University of Illinois at Urbana-Champaign

› Tonya McCarley, MSI, University of Michigan

DEGREES OFFERED AND STUDENT ENROLLMENTS

Bachelor of Science in Information	**472**
Master of Science in Information	**580**
Master of Health Informatics	**78**
Master of Applied Data Science (online)	**548**
PhD in Information	**122**
Total:	**1800**

Enrollment estimate as of 09/27/2024

#1
U.S. PUBLIC UNIVERSITY
(QS World University Ranking)

#2
in research volume among U.S. research universities (NSF)

HONORS & ACCOMPLISHMENTS HIGHLIGHTS

- **Academy of Behavioral Medicine Research Fellow:** Pedrag Klasnja
- **Massachusetts Institute for Technology Martin Luther King Jr. Visiting Professor:** Tawanna Dillahunt
- **International AAAI Conference on Web and Social Media Test of Time Award:** Eric Gilbert
- **Microsoft Research AI and Society Fellow:** Abigail Jacobs
- **The Association for Computing Machinery (ACM) distinguished members:** Eric Gilbert and Lionel Robert.
- **Michigan State University Stephen O. Murray Scholar in Residence:** Megan Threats
- **U-M Office of the Provost 2024 Henry Russel Award:** Robin Brewer
- **U-M Presidential Award for Public Impact:** Christian Sandvig

CURRENT GRANT HIGHLIGHTS

- NSF HCC Medium Grant: Sarita Schoenebeck & Eric Gilbert "Sociotechnical Systems to Combat Nonconsensual Intimate Media" — **$1,132,002**
- LG AI Research Grant: David Jurgens "Towards People-Centric Language Models with Self Alignment and Prompt Refinement" — **$163,636**
- NIH R01 Grant: Pedja Klasnja "ADAPT: Enabling Robust Adaptation in mHealth Interventions for Supporting Maintenance of Heart-Healthy Behaviors" — **$3,528,054**
- IMLS Grant: Libby Hemphill "Improving Metadata Quality and Minimizing Disclosure Risk with Human-AI Data Curation Pipelines" — $749,965
- Sloan Foundation Grant: Elle O'Brien "Generative AI and the Future of Research Software" — **$331,595**
- Open AI: Ron Eglash & Lionel Robert "Ubuntu-AI: A Bottom-up Approach to more Democratic and Equitable Training and Outcomes for LLM with human reinforced learning" — **$110,000**

RESEARCH HIGHLIGHTS

- A Turing Test of Whether AI Chatbots are Behaviorally Similar to Humans
- Citizen Attitudes Toward Science and Technology, 1957–2020: Measurement, Stability, and the Trump Challenge
- The Cadaver in the Machine: The Social Practices of Measurement and Validation in Motion Capture Technology
- "What are You Doing, Tiktok?": How Marginalized Social Media Users Perceive, Theorize, and "Prove" Shadowbanning
- Social Media and Job Market Success: A Field Experiment on Twitter
- From Information Poverty to Information Deficit: An Intersectional Analysis of Women of Color's News Information-Seeking Habits in the Digital Age
- Born Accessible Data Science and Visualization Courses: Challenges of Developing Curriculum to be Taught by Blind Instructors to Blind Students
- Author Mentions in Science News Reveal Widespread Disparities Across Name-Inferred Ethnicities
- Do LLMs Understand Social Knowledge? Evaluating the Sociability of Large Language Models with the Socket Benchmark

MIZZOU

ELECTRICAL ENGINEERING & COMPUTER SCIENCE

$62 Million in Research Proposals

$14 Million in Research Expenditures in 2023

20+ Research Labs & Centers

2 Nationally Recognized Centers

2 Ph.D. Programs
3 M.S. Programs
4 B.S. Programs
4 Graduate Certificates
2 Undergraduate Certificates

Tier I Research Institution
AAU University

Assistantships Available

First EE Program West of the Mississippi River

870+ EECS Students

RESEARCH AREAS

Applied Physics
Comm/Signal Processing
Computer Architecture/ Cyber Physical Systems
Nano/Micro Tech
Neural Engineering
Physical and Power Electronics
System Modeling, Control, Robotics
Cyber Security
AI, Machine Learning, Image and Video Processing, Computer Vision
Bioinformatics, Biomedical Imaging and Systems, Computational Biology
Cloud Computing, Networking, High Performance Computing
Database, Data Information Retrieval
Social Computing Human-Computer Interaction
Software Engineering, Programming Languages
Theory and Algorithms, Scientific Computing

More Than 45 Faculty Members

6 Graduate Programs

New Interdisciplinary B.S. Program in

DATA SCIENCE

Electrical Engineering & Computer Science
University of Missouri

UMKC
UNIVERSITY OF MISSOURI
KANSAS CITY

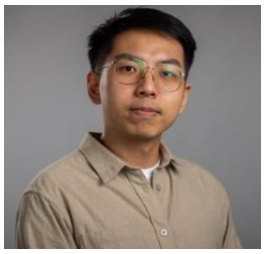
School of Science and Engineering

Division of Computing, Analytics and Mathematics

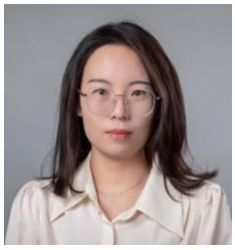
The Division of Computing, Analytics, and Mathematics at UMKC offers B.A., B.S., M.S., and Ph.D. degrees in Computer Science, an M.S. in Data Science, and a bachelor's degree in Information Technology. In Fall 2024, the Division has 45 Ph.D. students, 487 M.S. students, and 485 undergraduate students. The Division also leads UMKC's Cybersecurity Center, which is designated by the NSA as a Center of Academic Excellence in Cyber Research (CAE-R).

Three new tenure-track CS faculty members joined the Division in Fall 2024.

Dr. Rui Duan
Ph.D., Systems and Security, South Florida University,
Area: Cyberrsecurity, Adversarial Machine Learning



Dr. Cheng Han
Ph.D. Electrical and Computer Engineering, Rochester Institute of Technology.
Area: Computer Vision, Human-Embodied AI



Dr. Qiuye He
Ph.D., Computer Science, University of Oklahoma,
Area: Cybersecurity, Mobile Sensing and Computing.

Featured Grants

- NSF: NRT: Interdisciplinary Graduate Training through Research in Artificial Intelligence and Secure Networked Sensing to Mitigate the Crisis of Alcohol and Drug Abuse, Masud Chowdhury (PI), Yugyung Lee, Dianxiang Xu, Mostafizur Rahman, Farid Nait-Abdesselam, 6/2022 – 6/2027.
- NSF: ESL Level 2: Building AI-Powered Responsible Workforce by Integrating Large Language Models into Computer Science Curriculum, NSF 2336061, 02/2024-01/2027. Dianxiang Xu (PI), Brian Hare, Joan Gladbach, Syed Jawad H Shah.
- CDC: One Health Modeling to Combat Antimicrobial-Resistant Organisms, Majid Bani Yaghoub and Md Yusuf Sarwar Uddin, 8/2022–7/2025
- DoE: Education Center of Excellence: AI-Empowered Spatial Computing, Shu-Ching Chen, Yugyung Lee, et al., 12/2022–12/2025
- NIST: Building Enablers for Multi-Industry Sectors Collaborative Federated Open Platforms & Assets, as a Foundation for Cross-Industry End-to-End Services Innovation and Delivery AGILITY in the 5G & Beyond Era, Sejun Song and Baek-Young Choi, 2/2022–1/2025
- NSF REU Site: AI-Empowered Cybersecurity, 05/2024-04/2027. Yugyung Lee (PI), Dianxiang Xu.
- NSF: FMitF: Track II: SMT-Based Reachability Analyzer of NGAC Policies, Dianxiang Xu, 7/2023–12/2024

UNIVERSITY OF NEBRASKA–LINCOLN

SCHOOL OF COMPUTING

981 undergraduate students

42 master's students

88 doctoral students

170 bachelor's degrees

22 master's degrees

10 doctoral degrees

GROWTH TRENDS

42% increase in enrollment

2000+ students served annually

33 Tenure Track

11 Instructional

10 NSF CAREER Awardees

6 Endowed Chairs

1 IEEE Fellow

RESEARCH AREAS

INFORMATICS, ANALYTICS, FOUNDATIONS

SOFTWARE ENGINEERING

SYSTEMS

$4.2M in expenditures

$8M in new grant funding

94 total faculty publications

BRAID Initiative Founding Member

NCWIT Aspirations in Computing

Nebraska College Preparatory Academy

STEM CONNECT with community colleges

Intercollegiate Programming Contest

OUR MAJORS

We offer our students four undergraduate majors in computer science, computer engineering, software engineering, and data science. In 2025, we'll be introducing a new fifth major in robotics engineering.

OUR GRADUATE PROGRAMS

We offer master's and doctoral degrees in computer science, computer engineering, and computer science with a bioinformatics specialization. We also offer our undergraduates the option to enroll in our accelerated master's program, allowing students to take graduate courses at the undergraduate level and earn their master's degree in just one additional year of education.

OUR DIRECTOR

"The School of Computing is a special place with fantastic growth potential, collaborative faculty, and unwavering commitments to research, education, and outreach activities. I'm grateful for the opportunity to lead the School of Computing."

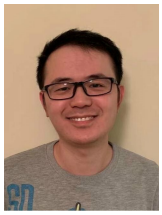
Witawas Srisa-an
Professor

UNIVERSITY OF NEBRASKA AT OMAHA
COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE

22	6	706	96
Full-time Tenure Track/Tenured Faculty	*Lecturers and Instructors*	*Undergraduate Students (2023)*	*Graduate Students (MS/MA CS and MS CSTE)*

NEW FACULTY HIGHLIGHTS



Xin Xing
PhD, University of Kentucky
Computer Vision, Machine Learning, Deep Learning

Jaydeb Sarker
PhD, Wayne State University
Software Engineering, NLP

Prashanti Manda
PhD, Mississippi State University
NLP, Health Informatics, Ontologies

Alfredo Perez
Associate Professor
PhD, South Florida
Privacy, Mobile/Ubiquitous computing, CS Education

Tiffany Zhang
Assistant Professor
PhD, University of Massachusetts, Networking, Deep Learning, Computer Vision, Cybersecurity

DEPARTMENT HIGHLIGHTS

- Computer Science Department hosts 2 NSF Career Awardees.
- CS faculty launch new initiatives including BS in AI, Center for AI, and Cloud Computing.
- CS Faculty invited for their AI expertise in multi university NSF Gen-4 ERC efforts.
- CS Faculty host their 11th National CS education week with support from Google.
- Yuliya Lierler promoted to Full Professor.
- Peggy Huang promoted to Associate Professor with tenure.

RESEARCH HIGHLIGHTS

- CS Faculty receives NSF CAREER in AI.
- CS faculty Mahadevan Subramaniam receives NSF SAT-C award for Quantum Inernet Educator collaboratively with Kennesaw State University.
- CS faculty record the highest year-year publications in top-tier conference and journal publications.
- Parvathi Chundi co-authors book, “ML for Material Science”, CRC Publishers, with faculty from South Dakota.

DEGREES & CERTIFICATES

- BS in Computer Science (ABET accredited since 2002)
  - Concentrations in Artificial Intelligence, Gaming, and Software Engineering
- BS/MS Fast Track Program
- MS/MA in Computer Science
  - Online Graduate Certificate in Machine Learning
- MS in Computer Science Teacher Education
  - Online degree option available
- PhD in Computing and Information Science
  - Concentrations in Artificial Intelligence, Computing Systems, and Human Centered Computing

Find out more at cs.unomaha.edu

UNIVERSITY OF NEBRASKA AT OMAHA
COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY

DEPARTMENT OF INFORMATION SYSTEMS AND QUANTITATIVE ANALYSIS

18
Full-time Tenure Track and Instructional Faculty

148
Undergraduate Majors (2024)

62
Graduate Majors (2024)

OUR FACULTY

RESEARCH AREAS

- Open source community health
- Citizen science
- Data analytics/data science/modeling
- IT for development
- Cybersecurity/information assurance
- Fair, trustworthy, transparent AI
- Human-AI collaboration
- Multi-factor risk assessment methodology, Collaborative design in tribal chatbots
- Mobile health (mHealth) interventions and equitable health outcomes
- Firm performance
- Research Funding sources: NSF, Ford Foundation, Alfred P. Sloan Foundation, Mozilla, Department of Education, NU Collaboration Initiative, NATO, Peter Kiewit Foundation, Mutual of Omaha Foundation

UNDERGRADUATE DEGREES

- BS Management Information Systems (ABET accredited since 2002)
- Undergraduate certificates in Data Management, IT Administration, Systems Development

GRADUATE DEGREES & CERTIFICATES

- MS Management Information Systems (MIS)
- MS MIS/Master of Business Administration dual degree
- MS MIS/Master of Public Administration dual degree
- MS Data Science (interdisciplinary degree between College of IS&T, College of Business, Department of Mathematics)
- Graduate Certificates in Data Analytics, Data Management, Information Assurance, Systems Analysis and Design, Project Management

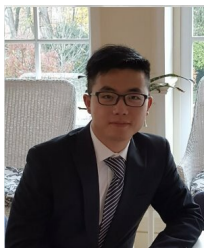
Find out more at isqa.unomaha.edu

UNIVERSITY OF NEBRASKA AT OMAHA
COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY

SCHOOL OF INTERDISCIPLINARY INFORMATICS

13	3	6	354	99
Full-time Tenured or Tenure Track Faculty	*Lecturers and Instructors*	*Adjuncts*	*Undergraduate Majors (2024)*	*Graduate Majors (2024)*

NEW FACULTY HIGHLIGHTS



Peng Jiang
PhD, Old Dominion University
Cybersecurity, Generative Adversarial Networks, Wireless Communication, Internet of Things

DEGREE PROGRAMS

- BS and MS in Cybersecurity
  - NSA designated Center of Academic Excellence (CAE)
  - in Cyber Defence (CAE-CD)
  - and in Cyber Offence (CAE-CO)
- BS in Applied Computing and Informatics
- MS in Human Centered Computing
- MS and PhD in Biomedical Informatics
  - CAHIIM Candidate designation

SCHOOL NEWS

- The Cybersecurity program has renewed its CAE-CO (Center of Academic Excellence in Cyber Operations) designation.
- The IT Innovation program has been renamed and redesigned. It is now called Applied Computing and Informatics. This program will emphasize human-centered computing concepts in applied contexts like design, innovation, and biomedical informatics.
- The Biomedical Informatics program has been named as a CAHIIM candidate for accreditation. Dario Ghersi, program director for BMI, will be leading the BMI Faculty through the next steps of CAHIIM accreditation over the coming year. CAHIIM accreditation is an internationally recognized designation that will be of interest to aspiring health informaticians around the world.
- The NebraskaCYBER Center is a launching a new initiative called MATRIX (Machine learning, AI, and Threat Response Initiative for cybersecurity eXcellence in Nebraska) to upskill the cybersecurity workforce in the Greater Nebraska region. NebraskaCYBER will feature an AI-enabled Security Operations Center, a Security training bootcamp, and support services for industry and government partners that center on cyber threat intelligence analysis and threat hunting.
- Drs. Ann Fruhling and Bill Mahoney recently completed faculty development fellowships. Dr. Fruhling worked to mature partnerships with her collaborators in health informatics. Dr. Mahoney worked on low-level computer assembly language constructs to better secure low-level capabilities that undderly modern operating systems.

UNIVERSITY OF NEW HAMPSHIRE
DEPARTMENT OF COMPUTER SCIENCE

NEW AND RECENTLY TENURED FACULTY

MOMOTAZ BEGUM
Robotics

SAMUEL CARTON
Natural Language Processing

ALEKSEY CHARAPKO
Cloud Computing

LAURA DIETZ
Information Retrieval

MAREK PETRIK
Machine Learning

DONGPENG XU
Cybersecurity

RESEARCH HIGHLIGHTS

- Dr. Momotaz Begum, along with her colleagues in the College of Health & Human Services, have been awarded $2.8M from the NIH and $1.5M from the NSF to develop Robot-Assisted Aging-in-Place.
- Dr. Samuel Carton is working on large language models (LLM) and how to interpret these models for effective and ethical human-LLM collaboration as well as leveraging these LLMs to facilitate scientific discovery, particularly in the area of materials science. He is also collaborating with Dr. Begum on her assistive robotics research.
- Dr. Aleksey Charapko is working on scalable distributed systems. His research focuses on planetary-scale storage and high-throughput, low-latency replication approaches for the cloud and edge.
- Dr. Laura Dietz is developing award-winning systems to help people find the information they are looking for. Such algorithms include web search, knowledge graphs, machine learning, and large language models. Graduates from her lab assume research positions in internationally recognized companies or are faculty at US institutions.
- Dr. Marek Petrik's research group develops safe and robust reinforcement learning algorithms in order to solve important environmental and sustainability challenges. Members of the group publish in top machine learning conferences and collaborate widely across the country and the world.
- The UNH SoftSec group led by Dr. Dongpeng Xu focuses on software security topics including automated software analysis, protection, and reverse engineering. The group's research works are supported by NSF grants and the results are published in top conferences such as USENIX Security and PLDI.
- The UNH AI Group, led by Dr. Wheeler Ruml, works on problems in planning, with a focus on heuristic graph search and applications to robotics. A special emphasis currently is planning under time pressure. The group collaborates with the marine robotics group at UNH CCOM as well as research groups around the world.

STUDENT HIGHLIGHTS

- Enrollments: 430 undergraduates, 26 MS students, and 30 PhD students. The undergraduate enrollment has increased 25% since 2021.
  New BA program in Computer Science with tracks in Algorithms, Systems, and Cybersecurity as well as undergraduate interdisciplinary programs in Analytics and Data Science
- Several current and former students work at the UNH InterOperability Laboratory as members of the executive and project management teams
- The Cybersecurity club, led by a 2019 IT program graduate, has grown to its largest size in several years.

School of Computer Science and Engineering

RESEARCH HIGHLIGHTS

Dr Dong Wen (DE24), Dr Jiaojiao Jiang (DE24), Dr Hanchen Wang (DE25) and Dr Yuekang Li (DE25) received an ARC Discovery Early Career Researcher Award.
The awards will support them to explore temporal data analytics, rumors detection in social networks, graph computation empowered by neural networks, and software vulnerability detection.

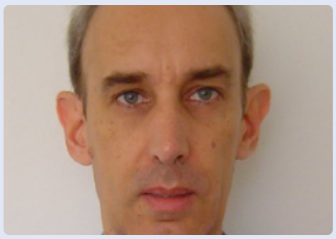
Prof. Jingling Xue received a grant for an ARC Discovery Project Scheme.
Prof. Xue received $514k for developing Ownership-based Alias Analysis for Securing Unsafe Rust Programs.

Prof. Arcot Sowmya received the "2023 Brilliant Women in Digital Health Award".
Prof. Sowmya was recognised in the Research category, presented by Telstra Health, recognising women who have made significant contributions to digital Health and Aged Care.

Dr Jake Renzella, Dr Andrew Taylor and Dr Sasha Vassar won an AFR Higher Education Award.
The team was recognised in the Teaching and Learning Excellence category for their innovative and scalable computing curriculum.

Scientia Prof. Gernot Heiser was inducted to the German National Academy of Science Leopoldina.
The election recognises the importance and global visibility of his work in the field of cybersecurity. Leopoldina is the world's oldest learned academy.

Scientia Prof. Toby Walsh was elected as a Fellow of the Australian Academy of Technological Sciences and Engineering.
Prof. Walsh was honoured for his important contributions to computer science and the foundations of artificial intelligence.



Prof. Ronald Van der Meyden received a grant from Australia's Economic Accelerator scheme.
Prof. van der Meyden received $324,940 to develop a commercial version of a software model checker.

68
academic staff

4 Associate Lecturers
14 Lecturers
19 Senior Lecturers
15 Associate Professors
13 Professors
2 Scientia Professors
1 Australian Laureate Fellow

15,531
students

10,108 Undergraduate students
5,166 Postgraduate students
257 HDR students

+ 11,600 students from other degrees took 1 or more courses

NEW STAFF MEMBERS

Benjamin Tag
Senior Lecturer

Rachid Hamadi
Senior Lecturer

Thomas Sewell
Lecturer

Angela Finlayson
Senior Lecturer

UNSW Computer Science and Engineering
cse.admin@unsw.edu.au
+61 2 9385 5518
UNSW Computer Science and Engineering

UNC | COLLEGE OF ARTS AND SCIENCES
Computer Science

cs.unc.edu
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Extending Our Impact

Founded in 1964 and now celebrating our 60th academic year, UNC Computer Science is working to sustain academic and research excellence through the next 60 years.

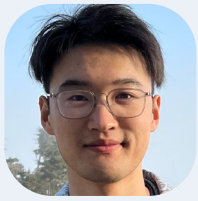
- **Serving more than 1,500 undergraduates and 200 graduate students** and scaling offerings as demand for degrees continues to increase
- **Expanding our master's program** to improve access to advanced CS education and meet industry need for skilled professionals
- **Leveraging partnerships** with the newly launched School of Data Science and Society and other units across UNC-Chapel Hill to maximize classroom and research collaboration opportunities

New Faculty 24/25

Our faculty continues to grow for 2024-2025. Balancing teaching and research, the cohort expands several of the department's top research areas and adds instructors with academic and industry backgrounds.

Tianlong Chen
Machine Learning

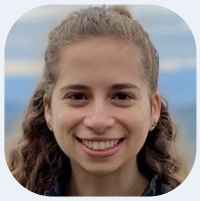
Zhun Deng
Machine Learning



Mingyu Ding
Robotics & Vision

Prairie Goodwin
AI & Data Science

Izzi Hinks
Geospatial Data Science



Julia Len
Computer Security

Raghav Pothukuchi
Computer Architecture

Collaborating Across Disciplines

With all the advantages of a top public research university, we are advancing technology to solve problems beyond computer science.

Accelerating Diagnosis via AI
Marc Niethammer led separate interdisciplinary collaborations involving computer science, biostatistics, and medicine that earned more than $5 million in grants to use machine learning for earlier diagnosis of autoimmune diseases and to study diagnosis and treatment of osteoarthritis.

Revolutionizing Parkinson's Treatment
Henry Fuchs and Danielle Szafir worked with medical researchers to develop PD-Insighter, a platform that combines augmented reality, data visualization, and patient monitoring to guide clinical review, analysis, and decision-making.

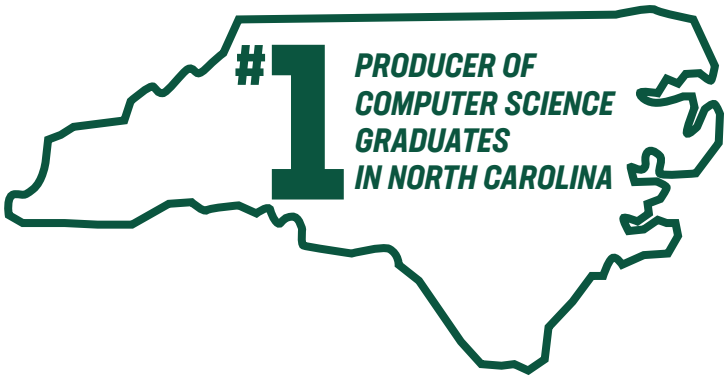
Streamlining Hardware Development
Cynthia Sturton received grants totalling nearly $2 million for multi-institutional collaborations to bolster hardware security verification using machine learning techniques.

Aiding Discovery with Robotics
Ron Alterovitz is programming assistive robots for chemistry, biochemistry, and materials science laboratory tasks, making those tasks safer, faster, and more reproducible.

Enhancing AI Understanding
Gedas Bertasius contributed to the Ego-Exo4D project, a collaboration of 14 universities and Meta creating a unique, large-scale, multimodal, multiview dataset to aid AI's understanding of human skill in real-world settings.

UNIVERSITY OF NORTH CAROLINA CHARLOTTE | COLLEGE OF COMPUTING AND INFORMATICS

is a recognized leader for innovative and market-responsive academic programs and pioneering research. Through our trend-setting research in AI, machine learning, cybersecurity, and bioinformatics along with our strong industry partnerships with leading tech companies, we play a key role in the growth of Charlotte as a major technology hub. With a supportive culture and dedicated faculty, CCI prepares students to lead in the fast-evolving world of computing.



DEGREES OFFERED

10

BACHELOR'S PROGRAMS

- B.A. CS, Bioinformatics
- B.S. CS, Bioinformatics
- B.S. CS, AI, Robotics, and Gaming
- B.S. Data Science
- B.S. CS, Data Science
- B.S. CS, Software, Systems, and Networks
- B.S. CS, Cybersecurity
- B.A. CS, Human-Computer Interaction
- B.A. CS, Information Technology
- B.S. CS, Web/Mobile Development and Software Engineering

6

MASTER'S PROGRAMS

- M.S. Computer Science
- M.S. Cybersecurity
- M.S. Information Technology
- M.S. Bioinformatics
- M.S. Data Science and Business Analytics
- M.S. Health Informatics and Analytics

DUAL MASTER'S DEGREES

- M.Arch. Architecture and M.S. Information Technology
- M.S. Architecture and M.S. Information Technology

2

DOCTORAL PROGRAMS

- Ph. D. in Bioinformatics and Computational Biology
- Ph. D. in Computing and Information Systems

CCI BY THE NUMBERS

#10	5,089	3,555	1,318	140
U.S. CS degrees	Total student enrollment	B.A./B.S. students	M.S. students	Ph. D. candidates

4-YEAR UNDERGRAD GRADUATION RATE

6-YEAR UNDERGRAD GRADUATION RATE

SOURCES: datausa.io/profile/cip/computer-science#tmap_institutions_grads
ir-analytics.charlotte.edu/tableau/fact-book-enrollment-summary-dashboard-0ir-analytics.charlotte.edu/tableau/undergraduate-level-retention-and-graduation-dashboard

NEW FACULTY 2024

RREZARTA KRASNIQI
Assistant Professor
Department of Software and Information Systems

MICHAEL SCHUCKERS
Professor
School of Data Science

STEPHANIE SCHUCKERS
Bank of America Distinguished Professor of Computing and Informatics
Department of Computer Science

JINZHEN WANG
Assistant Professor
Department of Computer Science

Fall '24

UNT
COLLEGE OF ENGINEERING
Department of Computer Science & Engineering

1,914 Undergraduate Students

2,356 Graduate Students

Information according to UNT Insights

4 **Undergraduate Programs**
- Information Tecnology
- Computer Engineering
- Computer Science
- Cybersecurity

6 **Graduate Programs**
- Artificial Intelligence
- Computer Engineering
- Computer Science
- Cybersecurity
- Data Engineering
- **Ph.D. in Comp. Sci./Eng.**

74 Total
37 Professional Faculty
37 Tenure-Track Faculty

Introducing:

Bilal Abu Bakr
Clinical Associate Professor

James Freedle
Clinical Assistant Professor

Mahdi Pedram
Assistant Professor

Sagnik Ray Choudhury
Assistant Professor

Nadia Bilal
Clinical Assistant Professor

Zhuqing Liu
Assistant Professor

Subharag Sarkar
Clinical Assistant Professor

Wenting Wang
Clinical Assistant Professor

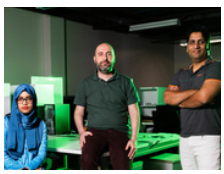
Rubenia Borge
Clinical Assistant Professor

Fernando Mosquera
Clinical Assistant Professor

Supreeth Shastri
Assistant Professor

Scan here to access our news page

Department Highlights:



PhD candidates chosen to participate in NIH program
Yunhe Feng, Assistant Professor, is a member of Dallas Innovates' inaugural list which "honors the most significant people in AI in DFW..."

Faculty selected for Dallas Innovates AI 75 List
Yunhe Feng, Assistant Professor, is a member of Dallas Innovates' inaugural list which "honors the most significant people in AI in DFW..."

Faculty selected for record 7th-time in D-CEO Dallas 500 list of 2024
Ram Dantu, Professor and Director for Center for Information & Cybersecurity, is bestowed this honor joining a highly decorated group of leaders around the DFW.

View video

Can AI help people with speech challenges?

Dr. Mark Albert, CSE Associate Chair, discusses how AI and machine learning can help people with speech and motor challenges communicate better based on his research with the Biomedical AI Lab at UNT.

CONNECT W/ CSE

3940 North Elm St. F201, Denton TX 76201
940-565-2767
cse@unt.edu

@UntCse
@untcomputerscience
UNT Department of Computer Science & Engineering

COMPUTER SCIENCE AND ENGINEERING

RESEARCH THEMES

- AI and Machine Learning
- Algorithms and Theory
- Assistive Technologies
- Computer Architecture and Nanotechnology
- Computer Vision, Medical Imaging, and Biometrics
- Digital Humanities
- Human Computer Interaction
- Natural Language Processing
- Network and Data Science
- Scientific and High-Performance Computing
- Security, Privacy, and Cryptography
- Software Engineering
- Visualization and Visual Analytics
- Wireless, Mobile, and Embedded Systems

CSE RESEARCH NEWS

- The CSE Department continues to grow welcoming four new faculty members this Fall, bringing expertise in game development and computational geometry to our community.
- Dr. Fanny Ye is leading a four-year, $1.5 million project funded by the US National Science Foundation to use social media data from teens and young adults to create a messaging platform aimed at reducing opioid misuse and addiction.
- Dr. Matt Morrison received the Global Semiconductor Alliance Women's Leadership Initiative's Allyship Award for championing the advancement of women and promoting inclusion.
- Dr. Karla Badillo-Urquiola and Dr. Joanna Cecilia da Silva Santos received 2024 Google Research Awards.
- Dr. Toby Li led a research project to develop artificial intelligence tools that help consumers recognize how they are being exploited on online platforms.
- Dr. Siddharth Joshi and Dr. Taeho Jung have received NSF CAREER awards.
- Dr. Nitesh Chawla was elected as fellow of the American Association for the Advancement of Science (AAAS)
- Dr. Walter Scheirer authored a New York Times bestselling book that explores the history and future of fake news.
- CSE students teamed up with other engineering students to win the Overall Grand Champion Award at the AIMM ICC Competition for creating a fully autonomous LPV and solving diverse objectives.

BY THE NUMBERS

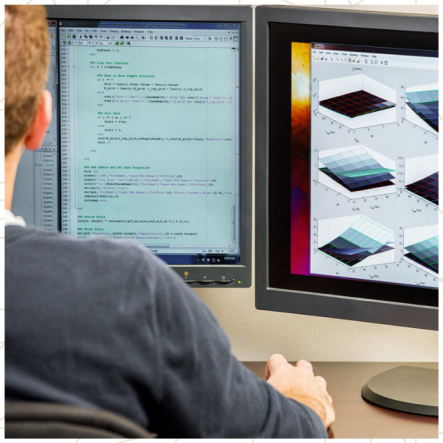
ENROLLMENT

- 180 B.S. graduates in 2024
- 447 CSE majors (sophomore through senior year)
- Expanding Masters Program
- 180+ PhD students

Our Ph.D. program includes full financial support, including a stipend and tuition scholarship.

FACULTY & RESEARCH

- 40 Full-Time Faculty
- 81 new research grants awarded in FY 24 ($16.6 million)
- $15.1 million expended in FY24
- Interdisciplinary research programs with:
  - Notre Dame Technology Ethics Center
  - Institute for Data Science and Society
  - Institute for Global Development
  - Center for Research Computing
  - Institute for Global Health
  - Institute for Precision Health
  - Institute for Advanced Study



www.cse.nd.edu

Penn Engineering
University of Pennsylvania

Computer and Information Science

Penn is the birthplace of the ENIAC, the world's first digital computer, and has been an innovator ever since! Located on a vibrant Ivy League campus, the Computer & Information Science Department conducts both core CS and interdisciplinary work. We have strong collaborations within Engineering, as well as with Penn's Wharton School of Business, Perelman School of Medicine, Annenberg School of Communication, Carey School of Law, Graduate School of Education, and School of Arts and Sciences.

Faculty

48	10	4
Tenured & Tenure-Track (2 joining in 2025)	Full-Time Teaching Track	Research-Track

Students

220	1100	2200	1100
PhD	on-campus MS *(5 programs)*	online MS *(3 programs)*	undergrads *(5 programs)*

Exciting Growth and New Initiatives!

Computer science and data science are strategic areas of investment for Penn; we have hired more than **25 new faculty** in the past 6 years. **Amy Gutmann Hall**, our new home for data science, adds 115,000 square feet of research and teaching space. Seamless interdisciplinary collaborations and centers connect Computer and Information Science to many fields across campus, including medicine, the physical sciences, and engineering.

New centers have launched this year to accelerate research on AI for RNA synthesis and discovery (AIRFoundry); data center energy management (Carbon Connect); and the Center for Media, Technology and Democracy.

Core departmental strengths include programming languages, natural language processing, robotics and vision, databases, networks and distributed systems, machine learning and data science, human-computer interaction, cryptography, and computational social science.

New Academic Programs

Penn Engineering has launched the Ivy League's first bachelor's degree in Artificial Intelligence, training the next generation of students in the formal foundations, engineering tools, and broader social implications of AI. In parallel we have also launched an online Master's in AI, especially appropriate for technical professionals who want to switch careers to this exciting field.

Faculty Highlights

Rajeev Alur was recognized with the ACM SIGACT Donald E. Knuth Prize.

Osbert Bastani received an NSF CAREER Award.

Gushu Li received an NSF CAREER Award.

Tal Rabin received the Edsger W. Dijkstra Prize in Distributed Computing.

Aaron Roth received the Frontiers of Science Award in Mathematics.

Erik Waingarten received an NSF CAREER Award.

Student Highlights

- Rosemary Encarnación, Hita Kambhamettu, Princess Sampson, and Andrew Zhu received NSF Graduate Fellowships.
- Soonbo Han received a Best Paper Award at ACM SIGMOD 2024.
- Jason Ma was named an Apple Scholar in AIML.
- Katherine Xu was awarded an NDSEG Fellowship.

Penn PhDs and postdocs on this past year's job market have taken first permanent positions at Stony Brook U, UCLA, Johns Hopkins University, Meta Research, Arizona State, U Toronto, Microsoft Research, and more.

University of Pittsburgh | Department of Computer Science, School of Computing and Information

cs.pitt.edu

Fall 2024

New Faculty (2024-25)

Junyu Liu
Assistant Professor
His research focuses on quantum machine learning, variational quantum circuits, quantum optimization, and quantum data centers.

Nils Murrugarra-Llerena
Teaching Assistant Professor
His teaching and research interests encompass computer vision, machine learning, and natural language processing.

Patrick Skeba
Teaching Assistant Professor
His teaching and research interests lie in internet privacy, and responsible use of AI and data.

New Program

Master of Data Science (with Coursera)
A collaboration among the Departments of Computer Science, Informatics and Networked Systems, and Information Culture and Data Stewardship.

New Administrative Appointments

- **Panos K. Chrysanthis:** Associate Dean for Graduate Studies
- **Bill Garrison:** Associate Dean for Undergraduate Studies
- **Adriana Kovashka:** CS Department Chair (elected)
- **Adam Lee:** Vice Provost for Undergraduate Studies, University of Pittsburgh
- **Diane Litman:** Associate Dean for Mentoring & Development
- **Erin Walker:** Associate Dean for Research

New CAREER Awards

Longfei Shangguan
Assistant Professor
NSF CAREER Award: Ubiquitous Earable Sensing Using Low-Cost Earphones

Xiaowei Jia
Teaching Assistant Professor
NASA Early Career Investigator Award: Towards Generalizable, Fair, and Knowledge-Guided Machine Learning for Monitoring Earth Systems

Faculty Recognition

Panos K. Chrysanthis was elected Fellow of the European Alliance for Innovation (EAI), and received the Mobile Data Management (MDM) 2024 Distinguished Contributor Award.

Diane Litman was named a Fellow with the Asia-Pacific Artificial Intelligence Association (AAIA).

Ryan Shi received the 2024 Newell Award for Research Excellence from Carnegie Mellon University alongside his PhD advisor, Fei Fang.

Student Awards

- **2023-2024 CRA Outstanding Undergraduate Researcher Award Recipients**
  - Anna Baskin, Finalist
  - Stephen Arndt, Honorable Mention
- **NSF Graduate Research Fellowship Program**
  - Griffin J. Hurt (currently pursuing PhD in our department)

New Center

The Cyber Energy Center, funded by the Department of Energy, is dedicated to developing cybersecurity solutions and addressing the needs of the evolving cyber-energy workforce. Professors Amy Babay, Stephen Lee, and Daniel Mossé are Co-PIs at the new center.

University of Pittsburgh®

Informatics and Networked Systems
School of Computing and Information

DEPARTMENT OF INFORMATICS AND NETWORKED SYSTEMS IS LEADING THE FUTURE OF RESEARCH AND EDUCATION IN:

- Quantum Computing
- Human-centered Artificial Intelligence
- Learning Technologies
- Network & Infrastructure Resiliency
- Data Fusion & Analytics
- Technology & the Future of Work
- Network Science
- Computational Social Science
- Culturally-responsive Technology Development
- Human-centered Computing
- Cybersecurity and Privacy
- Science of Science
- Immersive Media
- IoT and Mobile Sensing

The Department of Informatics and Networked Systems is a hub for research, education, and innovation and academic programs at the confluence of **information**, **networks**, and **human behavior.** Our scholars and students seek to design systems and networks that are accountable, resilient, trustworthy, sustainable and ethical.

Faculty News:

Prof. Peter Brusilovsky is leading an NSF project to build learning systems for CS education. Brusilovsky and his team of researchers leverage AI and advances in Learning Science to provide CS students with personalized learning experiences.

Prof. Rosta Farzan has been promoted to Full Professor. Farzan is also Associate Dean for Diversity, Equity, and Inclusion for the School of Computing and Information. Her research explores community-driven and advocacy-oriented data science literacy, system design for inclusivity, and fostering digital equity.

Prof. Na Du has secured funding from the Honda Research Institute to study "Human Emotion Regulation During Human-AI Interaction." Dr. Du works in the areas of human-computer interaction, human factors, computational modeling of human behaviors, and human-centered design.

Prof. Morgan Frank published in Nature Communications on his work to identify barriers to employment in green industries. This article notes how location, not reskilling, challenges fossil fuel workers in finding green jobs.

Prof. Dmitriy Babichenko has been promoted to Full Clinical Professor. Babichenko is a founding faculty member of the Digital Narrative and Interactive Design major. His research agenda focuses on the confluence of cultural, behavioral and professional aspects of immersive media technologies.

Prof. Lingfei Wu has added to the conversation about working and interacting remotely with his publication in Nature on "Remote Collaboration Fuses Fewer Breakthrough Ideas."

Raquel Coelho joined the faculty of the Department of Informatics and Networked Systems, with a joint appointment in Pitt's Learning Research and Development Center (LRDC). She earned her PhD in Learning Sciences and Technology Design combined with Education Data Science at Stanford University. Her research focuses on applications and theorizing of emergent technologies in learning, within human and equity-centered frameworks.

Department of Informatics and Networked Systems
School of Computing and Information
University of Pittsburgh
412-624-9473 or dins-info@pitt.edu
www.dins.pitt.edu

University of Rochester
Department of Computer Science

HAJIM SCHOOL OF ENGINEERING & APPLIED SCIENCES
UNIVERSITY of ROCHESTER

cs.rochester.edu

URCS Celebrates 50th Anniversary

The Department of Computer Science at University of Rochester turns 50. To commemorate the occasion, we hosted a series of distinguished speakers during Meliora Weekend 2024. This included alumni Daniel Sabbah '74, '78 (MS), '82 (PhD), former CTO and General Manager of IBM Next Generation Platform; Amanda Stent '01 (PhD), head of AI Strategy, Bloomberg LP; Christopher Stewart '08 (PhD), Professor of Computer Science and Engineering, Ohio State University; and Michael L. Scott, Arthur Gould Yates Professor of Engineering and Past Chair, Computer Science Department, University of Rochester.

Recent Hires

Yanan Guo
Software Security, Machine Learning Security, GPU Systems and Architectures, Memory Systems
PhD, University of Pittsburgh

Faculty and Staff Highlights

2024

- Jiebo Luo receives the 2024 Edmund A. Hajim Outstanding Faculty Award and the William H. Riker University Award for Excellence in Graduate Teaching.
- Michael L. Scott publishes revised editions of Shared-Memory Synchronization and Programming Language Pragmatics and is named a Life Fellow of the IEEE.
- Zhen Bai appointed as the Asaro-Biggar Family Fellow in Data Science.
- Fatemeh Nargesian appointed as the James P. Wilmot Distinguished Assistant Professor and receives NSF Career Award.
- Christopher Kanan elected to "Senior Member" of the Association for the Advancement of Artificial Intelligence.
- Ehsan Hoque's Research on AI-Based Online Testing for Parkinson's Disease featured on NSF 'Discovery Files' Podcast.

2023

- Jiebo Luo elected as a Fellow of the US National Academy of Inventors (NAI).
- Kaave Hosseini and co-authors received Best Paper Award at ICALP.
- George Ferguson received Edward Peck Curtis Award for Excellence in Undergraduate Teaching.
- Sara Klinkbeil received Edmund A. Hajim Outstanding Staff Award.
- Zhen Bai received NSF Career Award.
- Department faculty secure over $5M in new external grants.

Undergraduate and Graduate Highlights

2024

- Daniel Sabbah '74, '78 (MS), '82 (PhD) commits $2 million to establish the 50th Anniversary Distinguished Professorship in Computer Science.
- Hanjia Lyu receives Google PhD Fellowship in Health & Bioscience.
- Cole Goodman '25 Competes at U.S. Track & Field Olympic Team Trials.
- Andy Liu '24 Earns National Student Employee of the Year Award.
- Alexander Martin '24 named NSF Graduate Research Fellow.
- The Computer Science undergrad team ranked 17th in ICPC North America Championship and competed in the World Finals in Kazakhstan.

2023

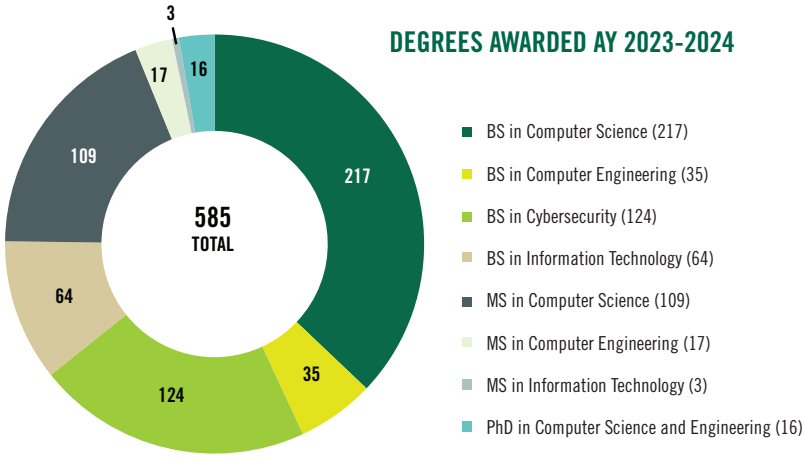
- Jingyuan Chen and his advisor Jiebo Luo received Best Student Paper award at IEEE ICDH.
- Hana Genana and Quynh Anh Pham received Susan B. Anthony Legacy Awards.
- Computer Science Undergraduate Council recognized with Award for Excellence in Creative Co-Sponsorship.
- Qingjian Shi '26 won People's Choice Award in Art of Science Competition.
- Sizhe Li is a finalist in the CRA Outstanding Undergraduate Researcher competition. Adira Blumenthal and Draco Xu received Honorable Mention.
- Raiyan Baten won Association for the Advancement of Affective Computing (AAAC) Outstanding PhD Dissertation Award.

UNIVERSITY of SOUTH FLORIDA

COMPUTER SCIENCE AND ENGINEERING

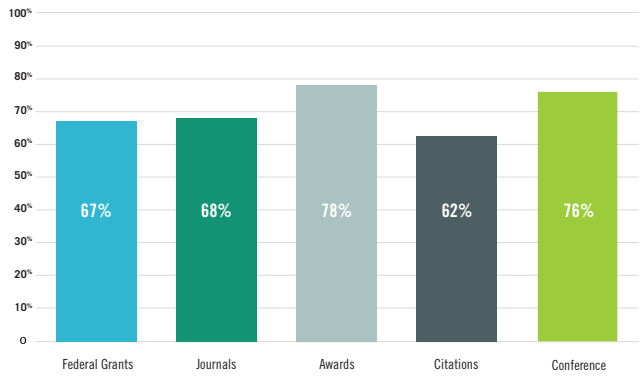
WWW.USF.EDU/ENGINEERING/CSE

DEGREES AWARDED AY 2023-2024



RESEARCH BENCHMARKS

Academic Analytics AAD 2022
Comparison Group: Public and Private
Overall: Top 15%



KEY FACTS AND RANKINGS

- 34 T/TT and 16 instructional faculty members and hiring!
- CSE faculty members lead the USF Institute for Artificial Intelligence (AI+X), the USF Center for Cryptographic Research, and Rapid7 Threat Intelligence Laboratory.
- Faculty members are executing $18 million in active external research grants from NSF, DoD, NIH, NIST, industry, and state sources. As reported to ASEE, the annual research expenditure for 2022-23 was $4.5 million.
- Active Computing Partners Program with Amgen, CAE, Johnson & Johnson, JPMorgan Chase, Nielsen, and Raymond James.
- Major initiative to broaden participation in computing through a grant from the NU Center for Inclusive Computing. AY 2022-23 had 28.7% women CS graduates, up from 18% two years ago.
- According to Academic Analytics Scholarly Research Index (using default weights for grants, articles, conferences, awards, and citations) (AAD 2022):
  - » USF CSE is top 15% (rank 42) among 273 Computer Science departments in public and private universities.
  - » USF CSE ranks middle among all CS departments at AAU universities (public and private)
  - » USF CSE is among the top 10 departments at the University of South Florida based on percentile in respective disciplines.

FACULTY RESEARCH AREAS

- Artificial Intelligence: Machine learning; Data mining; Robotics; Natural language processing; Computer vision; Reasoning systems; Fairness and explainability; Affective computing
- Cybersecurity: Network security; Wireless security; Applied cryptography; Runtime security; Intrusion detection systems; Human aspects of cybersecurity; Differential privacy; Hardware security
- Computing Hardware and Sensors: Chip design; AI accelerators; Testing and verification; Bio-implantable devices; Computational imaging; Mobile wireless sensing; Cyber-physical systems
- Human-Centered Computing: Smart health systems; Human-computer interaction; Brain-computer interfaces; Human performance; Socio- technical systems; Human-centered authentication; Human-robot interaction; Augmented reality; Social networks
- Networks and Systems: Green networks; Wireless networks; Mobile systems and communications; Database systems; Multimedia systems; Distributed systems

USC INFORMATION SCIENCES INSTITUTE

OVER FIVE DECADES OF INNOVATION IN ALL AREAS OF COMPUTING AND INFORMATION SCIENCES

USC Viterbi School of Engineering

USC University of Southern California

http://www.isi.edu

A UNIQUE RESEARCH INSTITUTE

- An off-campus research institute, part of the top-ranked University of Southern California (USC) Viterbi School of Engineering
- More than 400 faculty, researchers, staff, and students
- $75M annual research expenditures, placing USC as third nationally in federal funding in computer and information sciences
- Locations in Los Angeles, Boston, and Washington DC, with facilities for unclassified, open-access, ITAR, and classified research

RECENT HIGHLIGHTS

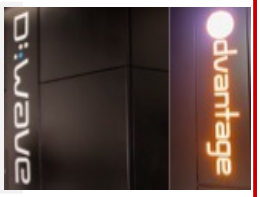
Networking -- With a recent $13M award from NSF, SPHERE will extend DeterLab, the only public cybersecurity experimentation and education testbed which has served more than 1,000 researchers and 22,000 students

Microelectronics -- With a recent $52M award from DoC, the DREAMS lab-to-fab electronics and microdevices superhub for Southern California builds on ISI's MOSIS with a history of 60,000+ IC designs since 1981

DREAMS
Defense Ready Electronics and Microdevices Superhub

Artificial Intelligence -- Lead organization in 8 Coordinating Centers in 7 NIH institutes since 2008, with awards totaling $85M for data management, data integration, and AI-enabled data for community analysis

Quantum -- Host of the first quantum computer in academia in 2011, upgraded in 2022 with over 5,000 qubits with added IBM quantum resources as well as a DARPA $18M award on quantum for secure networks



Space -- For 25 years, the Space Engineering Research Center (SERC) has been designing and flying CubeSats, swarms, "octopus" robotic grippers, and other space innovations

NOTABLE SPINOFFS

ICANN

iana

Established 1998 as a non-profit, ICANN took over the work at ISI on administering the top-level Internet domains and IP addresses that it managed for several decades

USC Institute for Creative Technologies

DOD UARC created in 1999 to combine ISI's AI agents research with cinematic arts for military training, with research expenditures of $30M/yr

LANGUAGE WEAVER

Automatic language translation spinoff acquired for $42.5M in 2010 by SDL, the largest human translation company

Second Spectrum

Sports analytics spinoff, sold for $200M in 2021 to Genius Sports, one of the world's largest sports tech companies

11/4/2024

USC Viterbi
Thomas Lord Department of Computer Science

2024 HIGHLIGHTS

A Revolutionary Space

This year, USC celebrated the ribbon-cutting ceremony for the new **Dr. Allen and Charlotte Ginsburg Human-Centered Computation Hall**. The eco-friendly, 116,000-square-foot facility is a key component of USC President Carol Folt's **Frontiers of Computing**, a groundbreaking $1 billion dollar initiative to fast-track ethical developments in advanced computing. Additionally, the department joined the newly established **School of Advanced Computing**, part of the Viterbi School of Engineering.

- **USC'S 1ST LEED PLATINUM-CERTIFIED BUILDING**
- **500,000 HOURS OF LABOR**
- **12,000,000 POUNDS OF CONCRETE**
- **145,000 BRICKS**

"This remarkable building serves as a nexus for computer science research and collaboration across USC."

–PROFESSOR NENAD MEDVIDOVIĆ
CHAIR OF THE THOMAS LORD DEPARTMENT OF COMPUTER SCIENCE

PIONEERING SOLUTIONS TO GLOBAL CHALLENGES

MENTAL HEALTH EPIDEMIC
With a $1.2 million National Science Foundation (NSF) grant, researchers are designing a personalized socially assistive robot to enhance Cognitive Behavioral Therapy (CBT) engagement for college students with anxiety.

EXTREME WEATHER
Researchers are creating a novel optimization system to manage wildfire risks, aiming to balance the protection of endangered species, buildings, and important water sources.

BATTLING CANCER
USC researchers created an AI model that predicts ovarian cancer tumor responses to chemotherapy, offering personalized treatment recommendations and insights into resistant tumors.

LIVING BETTER
A new study is examining if ocean surfing therapy can reduce chronic pain by studying its impact on the brain, using virtual reality (VR) to replicate the experience and increase accessibility.

FIGHTING MALNUTRITION
USC researchers are leveraging AI to predict acute malnutrition among children in Kenya by analyzing past data and satellite imagery, aiming to enable earlier interventions and improve health outcomes.

BY THE NUMBERS

1,660 undergraduate students

3,502 master's students

429 doctoral students

96 full-time faculty

25 faculty hired since 2022

NEW FACULTY

SAI PRANEETH KARIMIREDDY
Assistant Professor
Data challenges in machine learning

MENGYUAN LI
Assistant Professor
System security, cloud security, confidential computing

CARTER SLOCUM
Lecturer
Virtual reality, augmented reality

MÁTÉ SZABÓ
Senior Lecturer
History and philosophy of logic and computing

RECOGNIZING FACULTY ACHIEVEMENTS

HEATHER CULBERTSON
Mass Robotics, Rising Star Award

RUISHAN LIU
Google Gemma Academic Program Award

MAJA MATARIĆ
ACM Athena Lecturer Award

STEFANOS NIKOLAIDIS
Okawa Foundation for Information and Telecommunications Research Grant

GAURAV SUKHATME
American Association for the Advancement of Science Fellow

WEIHANG WANG
N2Women Rising Stars in Networking and Communications

YUE WANG
Powell Faculty Research Award

Toyota Research Institute, Young Faculty Researcher

YUE ZHAO
Google Cloud Research Innovator

WORLD-CLASS RESEARCH SINCE 1976

48 years
since the department was founded in 1976

$41M+*
in research expenditures

60
new faculty hires planned for the School of Advanced Computing

$121M
R&D expenditure for computer and information science at USC

$50M
naming gift donated by the Lord Foundation of California

**Includes expenditures from the Information Sciences Institute and the Institute for Creative Technologies*

cs.usc.edu

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

School of Computing Sciences and Computer Engineering

A National Center of Academic Excellence in Cyber Defense (CAE-CD)

Bachelor of Science degrees

- Computer Science*
- Information Technology*
- Computer Engineering**

Bachelor of Applied Science in Cybersecurity

MS and PhD in Computer Science

- Accelerated on-ramp to the MS in Computer Science for all undergraduate backgrounds

Online pathways available for undergraduate computer science, information technology, and cybersecurity programs and the MS and PhD in computer science

Faculty
12 Tenured/Tenure-Track
8 Teaching Track

AY 2024-25 New Instructor
Ms. Soundra Newson,
M.S., Computer Science

868 undergraduate students

111 graduate students

26.2% enrollment increase in fall 2024

37.6% enrollment increase in fall 2023

School of CSCE enrollment numbers as of 9/2/2024
**Accredited by the Computing Accreditation Commission of ABET*
***Accredited by the Engineering Accreditation Commission of ABET*

DEPARTMENT OF COMPUTER SCIENCE
THE UNIVERSITY OF TEXAS AT DALLAS

cs.utdallas.edu

COMPUTER SCIENCE PROGRAM

The Computer Science Department of The University of Texas at Dallas is among the largest in the US, with 93 faculty and about 5500 students. The 2025 USNWR ranking of national Universities ranks it the 3rd best among public Universities in Texas (4th overall) and 40th among public US universities.

Research Highlights

- Broad areas of research: AI, ML, NLP, Data Science, Software Engineering, Cyber Security, HCI, Networks, Computing Systems, Theory.
- Over $45 Million total external funding over the last 5 years.
- Faculty includes 18 NSF CAREER award winners, the most recent in 2024.
- CS Faculty direct multiple research institutes and centers, and one of the largest academic k-12 education and outreach centers.
- CS Department ranks consistently high in various CS subfields in csrankings.org, especially in AI and NLP.
- Dr. Yapeng Tian has been awarded the UIST'24 Belonging & Inclusion Best Paper Award.
- Dr. Bhavani Thuraisingham has been recognized for her pioneering research contributions to computing by inclusion in The Women of ACM-W book.
- UT Dallas is a funding site of the new USDoT national cybersecurity center, tasked to help protect connected vehicles, UAVs, and more.
- Dr. Bhavani Thuraisingham has been honored with the 2024 IEEE Computer Society's Impact Award from the Technical Committee on Multimedia Computing for her groundbreaking research in secure multimedia data systems and with the 2024 Big Data Security and Privacy Pioneer Award at the IEEE Big Data Security Conference.
- The Center for Applied AI and Machine Learning (CAIML) is highly sought after by the industry partners for the demonstrated ability to use AI & ML to impact business outcome.
- UT Dallas CS researchers apply AI & ML in the cross-disciplinary domains of energy harvesting, smart transportation, and health sciences.

Student Numbers/Growth/Education Highlights

- Approximately 5,500 students (4,650 Undergraduates, 700 Master's Students, 160 PhDs).
- Large number of students completing industry-sponsored senior-design, capstone projects, with many hired by the sponsoring companies upon graduation.
- Sponsor of the Grace Hopper Conference, supporting large student participation.
- Strong student involvement in campus life, with more than a dozen CS student organizations, including the ACM, Women Who Compute, the AI Society, the VR Society, and the Cyber Security student group.
- Center for CS Education and Outreach runs one of the largest university-based K-12 education and outreach programs in the US.
- NSA Center of Excellence in Cyber Security Education, Research, and Cyber Operations.
- BS in Data Science offered jointly with the School of Natural Sciences and Mathematics.
- New interdisciplinary BS degrees in Computational and Geospatial Science and in Cybersecurity being developed.
- UT Dallas CS Programming Team qualified three times to compete in the international collegiate programming contest (ICPC) world finals since 2020.

Organizational News

- Multiple new positions to be filled, including at open rank, in Quantum Computing, Robotics, Computer Vision, Cyber Security, Artificial Intelligence, Machine Learning, Human Computing Interaction, Computational Biology, High Performance Computing and Computational Neuroscience.
- Center for Research in Machine Learning is leading the way in external funding and research expenditures.
- Performance Computing facilities have been established at a University level.

Department Head

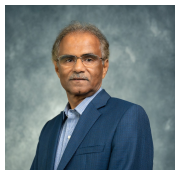
Dr. Ovidiu Daescu
PhD: University of Notre Dame, 2000

New Faculty

Dr. Zhiyu Chen
Assistant Professor
NLP, Deep Learning
PhD UC Santa Barbara

Dr. Andrew Nemec
Assistant Professor
Quantum Codes
PhD Texas A&M University

Dr. Sruthi Chappidi
Assistant Professor of Instruction
Comput. Biology
PhD UTD



Aditya Srivastava
Assistant Professor of Instruction
MS. CS U. Kentucky

Department of Electrical Engineering and Computer Science

Since 1872, The University of Toledo (UToledo) has been improving lives. Our graduates conduct cutting-edge research, perform on stage, heal patients, teach in classrooms and make an impact in their communities. We offer 300+ undergraduate and graduate degree programs across the arts, business, education, engineering, law, medicine, natural sciences, nursing and pharmacy.

The UToledo EECS Department is strongly committed to excellence in education and research. We strive to educate our students to excel in engineering and computational thinking through entrepreneurial-minded learning. Our integrated co-op program provides every undergraduate student an opportunity to gain work experience and practice problem-solving skills.

Our undergraduate, MS, and Ph.D. students in Computer Science, Computer Science & Engineering, and Electrical Engineering have exposure to ideas, knowledge, and facilities from faculty performing cutting-edge research. Five of our recent Ph.D. graduates have started their academic careers at US universities in the last five years.

Three Computer Science and Engineering faculty members recently joined the EECS Department.

Dr. Atlal El-Assaad

Assistant Lecturer

Joined Fall 2024

Her expertise areas include computational modeling of biochemical pathways and bioinformatics.

Dr. Ashish Kharel

Visiting Assistant Professor

Joined Fall 2024

His research focuses on machine learning and AI with applications to health care, biology and biostatistics.

Dr. Fayeq Syed

Visiting Assistant Professor

Joined Spring 2024

His research interests include survival analysis modeling, deep learning, and applied data-science in medicine.

Selected Ongoing Funded Research and Education in Computing:

- Dr. Kishwar Ahmed, Principal Investigator, CRII: CNS: Auction Mechanism Design for Energy-Efficient High Performance Computing, supported by the National Science Foundation, 2022-2025;
- Dr. Kishwar Ahmed, Co-Principal Investigator, CSSI Elements: Multi-GPU and Network Modeling and Simulation in SST, supported by the National Science Foundation, 2025-2027;
- Dr. Liang Cheng, Principal Investigator, AI and Robotics for Drug Discovery with Zebrafish: Embryo Sorting Systems, supported by the University of Toledo Foundation, 2023-2028;
- Dr. Liang Cheng, Co-Principal Investigator, Collaborative Research: SCH: Clinical Adaptive Performance Enhancement Through Human-AI Teaming (CAPE-HAT), supported by the National Science Foundation, 2024-2028;
- Dr. Liang Cheng, Co-Principal Investigator, Integrated LIBS-RAMAN-AI System for Real-Time, In-Situ Chemical Analysis of MSW, supported by the U.S. Department of Energy via Lehigh University, 2021-2025;
- Dr. Ahmad Javaid, Principal Investigator, Improving Cybersecurity Awareness and K-12 Education in Northwestern Ohio, supported by the Ohio Department of Higher Education via BGSU, 2023-2025.

Student Activities: ACM, ACM-W, IEEE, and AI student chapters/clubs have been empowering students with the community and resources to advance their interest and career in computing and other disciplines.

Other Highlights:

- Dr. Gursel Serpen has been serving at the National Science Foundation as a Program Director;
- The BS in Computer Science and Engineering is accredited by both the Engineering Accreditation Commission (EAC) and the Computing Accreditation Commission (CAC) of ABET.

Electrical Engineering and Computer Science • Mail Stop 308 • 2801 W. Bancroft St. • Toledo, OH 43606-3390
419.530.8140 Phone• 419.530.8146 Fax • www.eng.utoledo.edu/eecs/

Computer Science
UNIVERSITY OF TORONTO

60

@uoftcompsci

DEPARTMENT HIGHLIGHTS

NOBEL PRIZE

University Professor Emeritus and "Godfather of AI" **Geoffrey Hinton** was awarded the 2024 Nobel Prize in Physics, sharing the honour with John J. Hopfield of Princeton University "for foundational discoveries and inventions that enable machine learning with artificial neural networks."

Image credit: Adam Baker (CC BY 2.0)

Two startups with roots in the Department of Computer Science, Waabi and Cohere, have both had fundraising success this year. Waabi, a self-driving trucking startup founded by Professor **Raquel Urtasun**, has raised US$200 million in Series B funding. Cohere, an enterprise-focused AI startup that builds large language models for businesses, founded by U of T CS alumni, raised US$500 million in Series D funding.

The department's Embedded Ethics Education Initiative, encouraging undergraduates to incorporate ethical considerations into the design and development of new technologies, has continued to expand since it was launched as a pilot program in 2020. Enrolment in computer science courses with embedded ethics modules exceeded 8,000 students in the 2023-24 academic year.

BY THE NUMBERS

UNDERGRADUATE

3,695	2,058	20,000
CS1	CS Major/Specialist (incl. Data Science)	Course Enrolments

GRADUATE

65	208	332
MSc	MSc Applied Computing	PhD

FACULTY

121

FACULTY AWARDS & HONOURS

- Adjunct Professor **Bill Buxton** — Officer, Order of Canada (December 2023)
- Professor **Raquel Urtasun** — Order of Ontario (January 2024)
- University Professor Emeritus **Geoffrey Hinton** — Fellow, Association for Computing Machinery (ACM) (January 2024)
- Assistant Professor **Amir-massoud Farahmand**, Associate Professor **Gennady Pekhimenko** and Assistant Professor **Bo Wang** — Ontario Early Researcher Awards (March 2024)
- Professor **Sheila McIlraith** — Lifetime Achievement Award, Canadian Artificial Intelligence Association (May 2024)
- Associate Professor **Nisarg Shah** — Computers and Thought Award, International Joint Conferences on Artificial Intelligence Organization (June 2024)
- Professor **Raquel Urtasun** — Fellow, Royal Society of Canada (September 2024)
- University Professor Emeritus **Geoffrey Hinton** — Nobel Prize, Physics (October 2024)

NEW FACULTY

PAUL HE
Assistant Professor,
Teaching Stream
PhD: University of Pennsylvania

ANWAR HITHNAWI
Assistant Professor
PhD: ETH Zürich
System Security, Data Privacy

ZHIJING JIN
Assistant Professor
PhD: ETH Zürich
Natural Language Processing

CELEBRATING 60 YEARS

The University of Toronto's Department of Computer Science is celebrating its 60th anniversary throughout the 2024–25 academic year. This milestone commemorates 60 years since the official formation of its graduate program on July 1, 1964. Since its founding, the department has made pioneering contributions in personal computing, theoretical computer science, software systems, graphic design, artificial intelligence and more.

KAHLERT SCHOOL OF COMPUTING
THE UNIVERSITY OF UTAH

2024

BY THE NUMBERS
source: csrankings.org

TOP 1 Visualization
TOP 5 High-Performance Computing
TOP 15 Programming Languages
TOP 15 Graphics
TOP 30 Computer Architecture
TOP 30 HCI, NLP, OS, Robotics

2,571 Students
2,072 Undergraduates
66 MSD
176 MS
257 PhD

71 Faculty
57 tenure-track
12 lecturing
2 research

Summer Bridge Program for Incoming Freshmen
The program's third year continues to help ready incoming students for the challenges of our program. Exposure to course tools, student resources, and getting to know the campus will set these freshmen up for a successful first year.

New Research Experience for Undergraduates
In its second year, our research experience program allows undergrads to work closely with a faculty mentor and their research group on an individual project.

NEW FACULTY

Ahmad Alsaleem
Assistant Professor, Lecturer

Noelle Brown
Assistant Professor, Lecturer

Andrew McNutt
Assistant Professor

Neal Patwari
Professor

Guanhong Tao
Assistant Professor

KAHLERT SOC NEWS

Timothy Wang
Kahlert Fellowship Scholar

Valerio Pascucci
Collaborator, Biden Cancer Moonshot Project

Manish Parashar
CRA Distinguised Service Award

Ross Whitaker
Professor Emeritus

Vivek Srikumar
First Class, NAIRR Pilot Researchers

WE ARE HIRING
Our faculty will continue to grow in 2024-2025. We are searching for additional new faculty members. Visit **www.cs.utah.edu/faculty-hiring/** for details.

www.cs.utah.edu

THE JOHN & MARCIA PRICE COMPUTING & ENGINEERING BUILDING
Opening 2026

Scientific Computing and Imaging Institute

The Scientific Computing and Imagining (SCI) Institute uses translational research and innovation in computing to transform disciplines in ways that benefit the University of Utah and society at large. Our mission is to bring together the world's best researchers in simulation, imaging, visualization, and advanced scientific and data computing to collaborate with investigators across a broad range of domains to address and solve scientifically and societally important problems. Our interdisciplinary and multidisciplinary research groups drive the development and distribution of advanced software tools with broad and transformative impact.

2000-2024

1,966 Research Grants

3,700+ Publications

400+ Graduated PhDs

45 Best Paper Awards

2 Technical Oscars

SCI The University of Utah

RAI

The University of Utah

sci.utah.edu

Responsible AI

The SCI Institute is now home to the University of Utah's One-U Responsible Artificial Intelligence Initiative (One-U RAI). The initiative aims to advance AI to achieve societal good—all while protecting privacy, civil rights, and civil liberties, and promoting fairness, accountability, transparency, and equity.

rai.utah.edu

SCI Institute Faculty

Manish Parashar

- Computational and Data-Enabled Science and Engineering
- Parallel & Distributed Computing
- Extreme-scale Computing and Data Management
- Autonomic Computing

Rob MacLeod

- Cardiac Electrophysiology
- Uncertainty Quantification
- Software for Image-based Modeling, Simulation, and Visualization

Chris Johnson

- Scientific Visualization
- Scientific Computing
- Image Analysis
- Scientific Software Environments

Martin Berzins

- Extreme-Scale Scalability of Computational Frameworks
- Extreme-scale Parallel Solutions
- Adaptive Computational Algorithms in Scientific Computing

Mike Kirby

- Scientific and Data Computing
- Scientific Machine Learning
- Scientific Visualization
- Computational Science & Engineering

Sarang Joshi

- Image Understanding
- Computer Vision
- Shape Analysis

Valerio Pascucci

- Big Data Management and Analytics
- Scientific Visualization
- Discrete Topology
- Computer Graphics
- Computational Geometry

Tolga Tasdizen

- Image Analysis and Computer Vision
- Semi-supervised Learning
- Deep Learning Techniques
- Neural Circuit Reconstruction

Jeffrey Weiss

- Experimental and Computational Biomechanics
- Orthopaedics and Cardiovascular Mechanics
- Mechanics of Angiogenesis
- Image-based Analysis of Soft Tissue Mechanics

Orly Alter

- Computational Oncology
- Computational Medicine
- Bioinformatics

Alexander Lex

- Data Visualization
- Visualization in Biology
- Human Computer Interaction

Akil Narayan

- Approximation Theory and Methods
- Sparse and Regularized Representations
- Mathematical Shape Analysis
- High-order Numerical Methods
- Data Assimilation

Bei Wang

- Scientific Visualization
- Information Visualization
- Computational Topology
- Computational Geometry
- Machine Learning
- Data Mining

Bao Wang

- Data Science
- Deep Learning
- Stochastic Optimization
- Large-scale Scientific Computing

Tamara Bidone

- Computational Models and Simulations of Biological Systems
- Multi-scale Models in Biomechanics and Mechanobiology
- Multi-Physics Models of Cancer Cells

Kata Isaacs

- Scientific Visualization
- Data Visualization
- High Performance Computing

Shireen Elhabian

- Medical Image Analysis
- Machine Learning and Deep Learning
- Shape Modeling and Analysis
- Image Processing
- Computer Vision

Paul Rosen

- Data Visualization
- Human Computer Interaction
- Topological Data Analysis
- Computational Geometry

Amir Arzani

- Scientific Machine Learning
- Computational Fluid Dynamics
- Computational Structural Mechanics
- Cardiovascular Biomechanics

Andrew McNutt

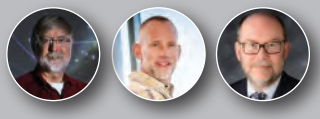
- Data Visualization
- Human Computer Interaction
- Programming Interfaces

Karli Gillette

- Cardiac Electrophysiology
- Patient-specific Modelling and Simulation
- Precision Medicine

Emeritus Faculty

Charles Hansen
Ross Whitaker
Dan Reed



The Computer Science Department at the University of Vermont had an exceptional year in 2023-2024 with several faculty members receiving major research awards, including two CAREER Awards, a Fulbright Award, and a UVM University Scholar Award. Our students received NSF Fellowships, created the inaugural UVM Hackathon, and had the opportunity to attend the TAPIA conference. As a community we continue to be leaders in research and education in Computer and Data Science in diverse and fascinating areas including data privacy, softrobotics, and applications of machine learning and AI in medicine and earth sciences.

Christian Skalka
Professor and Chairperson, Department of Computer Science

Computer Science Assistant Professors Joe Near and Nick Cheney received National Science Foundation CAREER Awards this past year. The honorees join over 30 other CAREER grant winners at the University of Vermont from the last 20 years.

Senior lecturer Clayton Cafiero's unique journey from self-taught coder to senior lecturer helped to shape his approach to writing his self-published coding textbook, crafting lessons that are as accessible as they are comprehensive.

The 2023 Computer Science Fair featured over 100 individuals and teams vying for the top prize in each of 8 technical categories. Projects this year range from whimsical game design to counter cyberterrorism to measuring soil moisture content.

Professor and Graduate Student Advisor Josh Bongard was recently announced as a recipient of a 2024 University Scholar Award in Basic and Applied Sciences. The award, presented annually, honor and recognize distinguished UVM faculty members for sustained excellence in research, creative and scholarly activities.

Computer Science Senior Lecturer Lisa Dion was recognized for her ongoing commitment to helping young girls enter the world of computer science with confidence and skill through the Girls Who Code program, providing programming lessons on Saturday mornings for girls from 6th to 12th grade.

With generous support and facilitation from the Computer Science department, 5 undergraduate students and one Ph.D. student were able to attend the Richard Tapia Celebration of Diversity in Computing Conference in Grapevine, Texas this fall. At Tapia, the students were able to participate in three days of workshops and networking.

For his groundbreaking research at the nexus of machine learning theory and its practical application, Assistant Professor Safwan Wshah was recently recognized with a prestigious Fulbright Award.

Piper Welch, a Computer Science Ph.D. student was recently awarded a NSF Graduate Research Fellowship to continue her research with Professor Josh Bongard to design and build "Xenobots," the world's first self-replication living robots.

Participants in UVM's first annual Hackathon joined forces with their peers to create teams of two to six people and take on one of four programming challenges ranging from a Programming Language Learning Tool to Phishing Emails Prevention.

University of Vermont
College of Engineering and Mathematical Sciences
Computer Science

www.uvm.edu/cems/cs

UNIVERSITY OF VIRGINIA
COMPUTER SCIENCE

DISCOVERY AND INNOVATION
Driven by Great People

NEW TENURE-TRACK/TENURED FACULTY 2024-2025

Rohan Chandra | ASSISTANT PROFESSOR
Ph.D. University of Maryland, College Park
Robotics, autonomous driving, multi-robot systems

Chen Chen | ASSISTANT PROFESSOR
Ph.D. Arizona State University
Data mining, machine learning, computational epidemiology

Zezhou Cheng | ASSISTANT PROFESSOR
Ph.D. UMass Amherst
Computer vision, machine learning, AI for science

Hadi Daneshmand* | ASSISTANT PROFESSOR
Ph.D. ETH Zurich
Machine learning and AI, optimization, stochastic processes
*starting December 2024

Matheus Ferreira | ASSISTANT PROFESSOR
Ph.D. Princeton University
Algorithmic economics, multi-agent AI, security, cryptography

Henry Kautz | PROFESSOR
Ph.D. University of Rochester
Artificial intelligence

Wenxi Wang | ASSISTANT PROFESSOR
Ph.D. University of Texas at Austin
Software engineering, software security, machine learning, formal methods

NEW TEACHING FACULTY 2024-2025

Shivani Datar | LECTURER
M.S. Northeastern University

Research **Strengths**

- CYBER-PHYSICAL SYSTEMS
- ARTIFICIAL INTELLIGENCE
- CYBERSECURITY
- COMPUTER SCIENCE EDUCATION
- SOFTWARE ENGINEERING
- COMPUTER SYSTEMS
- THEORY
- HUMAN-COMPUTER INTERACTION

2024 ACCOLADES

Jack Davidson, Professor - received the ***Outstanding Contribution to ACM Award*** for leadership in and contributions to ACM's Publications Program.

Wajih Ul Hassan, Assistant Professor - received the ***NSF CAREER Award*** - Foundational Principles for Harnessing Provenance Analytics for Advanced Enterprise Security

Tariq Iqbal, Assistant Professor - selected for the ***Air Force Office of Scientific Research (AFOSR) - Young Investigator Program (YIP) award***

Adwait Jog, Associate Professor - received an ***NSF Collaborative Research Award*** for Enabling GPU Performance Simulation for Large-Scale Workloads with Lightweight Simulation Methods

Yen-Ling Kuo, Assistant Professor - Toyota Research Institute's ***Sponsored Research Collaboration*** for work "Action-Centric Language Representations for Shared Autonomy"

Paul McBurney, Assistant Professor - received ***Most Influential Paper Award*** at ICPC 2024

Yu Meng, Assistant Professor - awarded ***Superalignment Fast Grant*** by OpenAI which aims at building next-generation superhuman AI systems

Yu Meng - received the ***2024 ACM SIGKDD Outstanding Dissertation Award***

Briana Morrison, Associate Professor - recognized as an ***ACM Distinguished member*** for scholarship, leadership, and service to computing education and its communities"

Kevin Skadron, Harry Douglas Forsyth Professor - received the UVA Engineering School's ***Distinguished Faculty Award***

Jack Stankovic, BP America Professor Emeritus - ***2024 IEEE Simon Ramo Medal***, for exceptional achievement in systems engineering and systems science.

Aidong Zhang, Thomas M. Linnville Professor - received the ***ACM Distinguished Service Award*** for her impactful leadership and lasting service to the broad communities of bioinformatics, computational biology, and data mining.

Aidong Zhang has been elected to the ***Virginia Academy of Science, Engineering, and Medicine.***

Recent Alum **Elijah Boyd** - part of the inaugural class of ***NobleReach scholars*** receiving early-career one- to two-year roles in the federal government focused on critical areas such as cybersecurity and artificial intelligence.

The UVA **Cavalier Autonomous Racing team** claimed the ***first victory for an American team in the speed trial portion of the Indy Autonomous Challenge*** posting a top speed of more than 171 mph in September 2024.

ENGINEERING.VIRGINIA.EDU/CS

UNIVERSITY of VIRGINIA
SCHOOL of ENGINEERING & APPLIED SCIENCE
Department of Computer Science

Information School
UNIVERSITY of WASHINGTON

ACCOLADES


Amy J. Ko


Chirag Shah


Judy Kong


Anind K. Dey

Professor **Amy J. Ko** was named a Distinguished Member of the Association for Computing Machinery, the world's largest and most prestigious association of computing professionals. Distinguished Members are those who have achieved significant accomplishments or have made a significant impact on the computing field.

Professor **Chirag Shah** received the ASIS&T Research in Information Science Award, which recognizes a scholar or team each year for their contributions to the field.

Dean **Anind Dey** and three co-collaborators received the 2024 AAAI Classic Paper Award, a 15-year impact award recognizing their paper "Maximum entropy inverse reinforcement learning," which was published in Proceedings of the 23rd National Conference on Artificial Intelligence.

The Computing Research Association's Committee on Widening Participation in Research named **Martez Mott,** Ph.D. '18, as the recipient of the 2024 Skip Ellis Early Career Award for his research and service to the computer science community. Mott is a Senior Researcher in the Ability group and Human Centered AI Experiences team at Microsoft Research.

Ph.D. candidate **Judy Kong**, Professor **Jacob O. Wobbrock** and collaborators won the Best PaperAward at MobileHCI 2024 for the Ability-Based Design Mobile Toolkit, which guides developers in creating apps that respond to users' physical abilities.

NEWS & IMPACT

The **Master of Science in Information Management** program responded to the rise of artificial intelligence with changes throughout the curriculum, including a new specialization in AI.


Aylin Caliskan

Assistant Professor **Aylin Caliskan** was awarded more than $1 million from NIST, the National Institute of Standards and Technology, for her research countering bias in AI. Caliskan's work has been cited extensively in the 2020s by NIST, which is charged with evaluating and mitigating the risks of AI systems to ensure safety, security and trust, while promoting an innovative, competitive AI ecosystem.

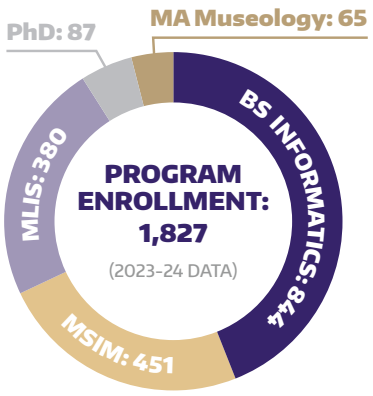

Hala Annabi

Associate Professor **Hala Annabi** released the *Neurodiversity @ Work Federal Edition,* a step-by-step guide for government agencies to onboard and support neurodivergent workers.

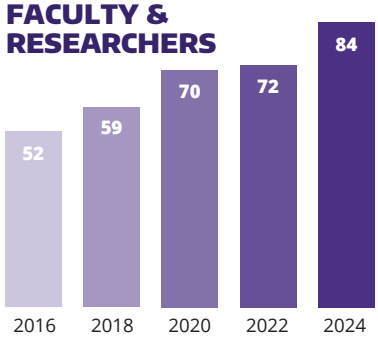
Associate Professor **Katie Davis** spoke at several state and national conferences, including the National Association of Attorneys General's Presidential Summit, about protecting children from social media harms.

More than 1,000 high school students participated in **MisinfoDay 2024** events at the University of Washington and Washington State University. The events promoted strategies for combating misinformation.

BY THE NUMBERS



FACULTY & RESEARCHERS



LEADING-EDGE RESEARCH

$6,973,057

in research funding for fiscal 2023-24

INCREASING ACCESS

54%

of Master of Science in Information Management students are enrolled in the online modality, which provides broader access to tech education.

DIVERSITY IN TECH

53%

of undergraduate Informatics students are women or non-binary, helping to close the gender gap in STEM fields.

Research Impact

Advancing open AI to empower researchers

As part of a long-standing collaboration with the Allen Institute for AI, Allen School researchers co-led the development of OLMo, a truly open LLM and framework, and Dolma, a pretraining dataset comprising over 3 trillion tokens, to advance AI model transparency, reproducibility and fairness.

(Prof. Hannaneh Hajishirzi, Noah Smith, Luke Zettlemoyer)

Best Theme & Best Resource Paper Awards, ACL 2024

Applying AI to address societal challenges and mitigate harms

Target speech hearing

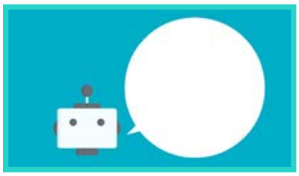
Advancing AI for speech and audio — the next frontier in human-AI interaction

Digital pathology

Building open-access foundation models that incorporate real-world, whole-slide data at scale

Rapid robot training

Creating AI simulations from photos or videos to help robots navigate real-world environments



Bot detection

Training LLMs to identify malicious social media bots to combat the spread of misinformation

Bias reduction

Analyzing bias in AI systems like ChatGPT to improve fairness for people with disabilities

Synthetic imagery

Exploring attitudes to AI-generated intimate imagery to inform tech and policy development

Student Impact

CRA 2024 Outstanding Undergraduate Researcher Awards




Kianna Bolante (Winner)
Claris Winston (Finalist)
Andre Ye (Finalist)
Nuria Alina Chandra (Hon. Mention)

Alumni Impact

MacArthur Fellowship

Nicola Dell (Ph.D., '15)
Technology interventions for overlooked populations

UW CoE Diamond Award

Hakim Weatherspoon (B.S., '99)
Leadership for diversity, equity and inclusion in computing

Allen School by the #s

2,200 Undergraduate majors

360 Ph.D. students

100 Faculty members

#1 University in CS Best Paper authorship

Good Things Come in 3s

Prof. Su-In Lee

Explainable AI for biomedicine

Samsung Ho-Am Prize in Engineering ("Korean Nobel Prize")

Innovator Award, International Society for Computational Biology

Fellow, American Institute for Medical and Biological Engineering

Prof. Adriana Schulz

AI-aided design for manufacturing

Significant New Researcher Award, ACM SIGGRAPH

Sloan Research Fellowship, Alfred P. Sloan Foundation

NSF CAREER Award, National Science Foundation

NVIDIA Acquires OctoAI

The company, which was spun out of the Allen School based on research by professors **Luis Ceze, Arvind Krishnamurthy, Zachary Tatlock, Carlos Guestrin** and their students, pioneered a framework for rapidly deploying and optimizing AI applications across platforms and devices.

Standing the Test of Time




Theoretical Computer Science

STOC 30-Year Test of Time Award: Balanced Allocations **(Prof. Anna Karlin)**

SAT Test of Time Award: Combining Component Caching and Clause Learning for Effective Model Counting **(Prof. Paul Beame)**

Programming Languages & Software Engineering

FSE Most Influential Paper Award: Are Mutants a Valid Substitute for Real Faults in Software Testing? **(Prof. René Just, Prof. Michael Ernst)**

ISSTA Impact Paper Award: Defects4J: A Database of Existing Faults to Enable Controlled Testing Studies for Java Programs **(Just, Ernst)**

David R. Cheriton School of Computer Science

The University of Waterloo's David R. Cheriton School of Computer Science is the largest academic concentration of computer science researchers in Canada. We have more than 100 faculty members, 60 administrative, instructional and technical staff, 4,000 undergraduate students and 450 graduate students.

Our CS research areas

- Algorithms and complexity
- Artificial intelligence and machine learning
- Bioinformatics
- Computer algebra and symbolic computation
- Computer graphics
- Cryptography, security, and privacy
- Data systems
- Formal methods
- Health informatics
- Human-computer interaction
- Programming languages
- Quantum computing
- Scientific computation
- Software engineering
- Systems and networking
- Theoretical neuroscience

Our new faculty members

Matt Brehmer
HCI and data visualization; ubietous information experiences

Anamaria Crisan
Human-centred AI and ML; interactive visualization systems; data science in healthcare, public health and biomedicine

Yuntian Deng
Natural language processing and machine learning

Xiao Hu
Database theory and its applications to practical database systems

Renée J. Miller
Canada Excellence Research Chair in Data Intelligence
Data systems, in particular data integration

Freda Shi
Computational linguistics and natural language processing

Victor Zhong
Machine learning, natural language processing, reinforcement learning and AI

Our highlights

Cheriton School of Computer Science, top-ranked CS program in Canada for fourth year in a row
2024 Maclean's University Rankings

Cheriton School of Computer Science, 21st CS program internationally
2024 Quacquarelli Symonds World University Subject Rankings

N. Asokan
Fellow of the Royal Society of Canada

Shai Ben-David, Ian Goldberg
ACM Fellows

Jo Atlee
Lifetime Achievement Award, CS-Can | Info-Can

Ming Li
IEEE Computer Society W. Wallace McDowell Award

Craig S. Kaplan and international colleagues
Aperiodic monotile, TIME's 2023 Best Inventions

M. Tamer Özsu
- *IEEE TCDE Education Award*
- *ACM Presidential Award*

Ihab Ilyas
IEEE Canada C.C. Gotlieb Computer Award

Daniel Vogel
ACM Distinguished Member

Md. Faizul Bari, Arup Raton Roy, Shihabur Rahman Chowdhury, Qi Zhang, Mohamed Faten Zhani, Reaz Ahmed, Raouf Boutaba
2024 CNOM Test of Time Paper Award

Gautam Kamath and international colleagues
- *Caspar Bowden Award for Outstanding Research in Privacy Enhancing Technologies*
- *Best Paper Award, ICML 2024*

Nikhita Joshi, Daniel Vogel
Best Paper Award, CHI 2024

Xinyu Shi, Jian Zhao, Yinghou Wang, Yun Wang
Best Paper Award, CHI 2024

Vasisht Duddu, Sebastian Szyller, N. Asokan
Distinguished Paper Award, PLDI 2023

Jo Atlee, Rungroj Maipradit, Joy Idialu, Noble Saji Mathews, Mei Nagappan
ACM SIGSOFT Distinguished Paper Award, MSR 2024

Raouf Boutaba
Inaugural Rogers Chair in Network Automation

Yaoliang Yu
Ontario Early Researcher Award

Damien Masson
- *Prix de thèse L'Association Francophone de l'Interaction Humain-Machine Dissertation Award*
- *Bill Buxton Award for Outstanding Doctoral Dissertation in Human-Computer Interaction*

Andrew Qi Tang, Ramazan Rakhmatullin, Kevin Wan
Eighth globally (silver medallists), first in North America, 47th ICPC World Finals

David R. Cheriton School of Computer Science • University of Waterloo
200 University Avenue West • Waterloo, ON, Canada N2L 3G1 • cs.uwaterloo.ca

UNIVERSITY OF WATERLOO | FACULTY OF MATHEMATICS DAVID R. CHERITON SCHOOL OF COMPUTER SCIENCE

UNIVERSITY of WEST FLORIDA

Department of Computer Science

DEGREE PROGRAMS OFFERED

Undergraduate Programs

- James E. Miller B.S. in Computer Science *(ABET accredited)*
- B.S. in Software Development
- Interdisciplinary BS

Graduate Programs

- M.S. in Computer Science


Cyber Camp


ICPC Southeast USA Regional Contest


Cyber Competition

MAKING A DIFFERENCE IN THE WORLD OF COMPUTING.

SELECTED FACULTY GRANTS

- **Anthony Pinto:** NSA GenCyber *($200,000 total over 3 years)*
- **Anthony Pinto:** NSA CAE Regional Hub and Consortium *($290,000)*
- **Ashok Srinivasan:** A data analytics framework for the application of pedestrian dynamics to public health *(NIH/NLM, $394,525)*
- **Ashok Srinivasan:** Privacy Preserving Models Leveraging Mobility for Public Health *(coPI, NSF, $299,993)*
- **Ashok Srinivasan:** Cyberinfrastructure for Pedestrian Dynamics-Based Analysis of Infection Propagation Through Air Travel *(NSF: $600,000)*
- **Sikha Bagui:** Computer Science for All *(NSF, $300,000)*
- **Sikha Bagui:** Robust Automated Risk Detection and Mitigation System for Network Intrusion Detection Systems *(NSA: $489,482)*

NEW FACULTY MEMBERS

Mahmoud Elish, Associate Professor
- Ph.D., George Mason University
- Expertise in software engineering

Yuanqi Xie, Lecturer
- M.S., Vanderbilt University
- Expertise in biomedical computing applications

Shashi Jha, Assistant Professor
- Ph.D., Embry Riddle Aeronautical University
- Expertise in machine vision and machine learning

STUDENT HIGHLIGHTS

- Undergraduate and graduate students are co-authors on peer-reviewed conference and journal publications
- Undergraduate and graduate students present at regional/national/international conferences
- Students regularly place in competitions:
  - Southeast Collegiate Cyber Defense Competition – Top 5 of 30 Teams
  - Southeast Collegiate Penetration Testing Competition – 2nd Pl
  - NCAE Cybergames Southeast Regionals - 2nd Pl
  - International Collegiate Programming Contest - Southeast Region - 11th Pl, Division II

OUTREACH

- National Center for Women & Information Technology (NCWIT)

STUDENT ORGANIZATIONS

- Association for Computing Machinery (ACM)
- Women in Cybersecurity (WiCys)
- AI and Data Analytics (AIDA)

uwf.edu/computerscience

Department of Computer Sciences
UNIVERSITY OF WISCONSIN-MADISON
Celebrating 60 Years

Research Initiatives and Faculty Awards

Steve Wright
Awarded George B. Dantzig Prize for fundamental contributions to optimization and elected to National Academy of Engineering

Xiangyao Yu
Named 2024 Sloan Research Fellow

Swamit Tannu, Ming Liu & Rahul Chatterjee
Awarded NSF CAREER Awards

Jelena Diakonikolas
Named 2024 AFOSR Young Investigator

Somesh Jha
Won USENIX Security Symposium Test of Time Award for "Privacy in Pharmacogenetics: An End-to-End Case Study of Personalized Warfarin Dosing"

UW-Madison Computer Sciences PhD program
Designated a National Center of Academic Excellence in Cyber Research by National Security Agency.

Bilge Mutlu
Awarded NSF grant as part of multi-institutional collaboration launching Human AugmentatioN via Dexterity (HAND) Engineering Research Center

Our Newest Faculty

Ali Abedi
Systems/ Networking

Sandeep Silwal
Theory

Manolis Vlatakis
Machine Learning/ Game Theory/ Optimization

Tengyang Xie
Machine Learning

Visit:
www.cs.wisc.edu

School of Computer, Data & Information Sciences (CDIS)

Our new building project is well underway! To be completed July 2025, Computer Sciences, the Information School, and Statistics will be together under one roof. The new building will enable broad collaborations, magnifying the power of discovery across the university in medicine, engineering, agriculture, business, and beyond.

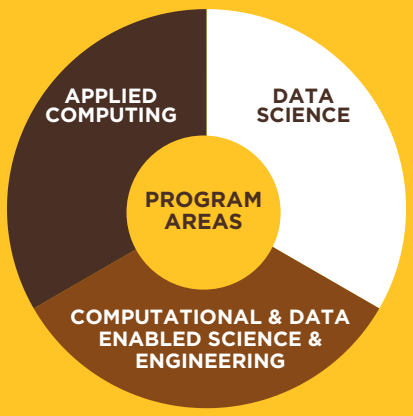
University of Wyoming | School of Computing

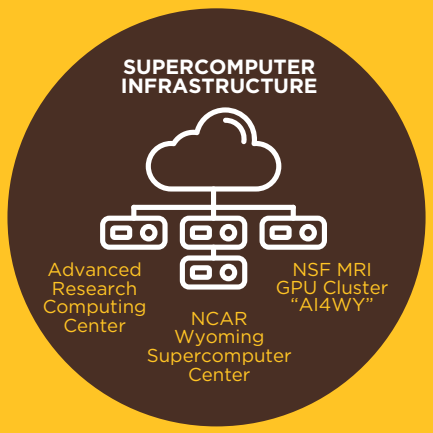
ABOUT US

Established in 2023 with first faculty. UW School of Computing focuses on computing across disciplines and context-based experiential learning opportunities for every student in any domain.

WHY US?

By integrating computing into your studies, you can learn to apply technological solutions to challenges in your primary field, making you more adaptable and better prepared for a tech-driven world.





ACADEMICS

15 Credentials

- Computing: B.S., Minor
- Data Science: B.S.
- Applied Software Development: B.S.
- GIST: B.S., M.S., Certs
- AI & QISE: M.S.
- CDSE: Minors

FACULTY

19 Core Faculty
11 Tenure Track
4 Instructional
4 Research Scientists
44 Affiliate Faculty
9 Derecho Professors
5 Postdocs
49 Faculty Fellows


Director Gabrielle Allen


Ellen Aikens


Shannon Albeke


Gabriel Barrile


Sean Field


Jian Gong


Jeff Hammerlinck


Jake Hawes


Paddington Hodza


Meridith Joyce


Andrew Kirby


Ben Koger


Austin Madson


Beth McMillan


Shanshan Li


Stefan Rahimi


Ramesh Sivanpillai


Dane Taylor


Chen Xu

STUDENTS

111 Enrolled Students
174 Student Experiences
36 Academic Units
62 Undergrad Researchers
48% 52%

RESEARCH FUNDING

$713K $/yr/Faculty

NASA | NSF | USDA | U.S. DEPARTMENT OF ENERGY | USGS science for a changing world

uwyocomputing | uwyocomputing | uwyocomputing | uwyo.edu/soc

VCU College of Engineering

Computer Science

CYBERSECURITY: VCU leads the central-Virginia node of the Commonwealth Cyber Initiative

- DoD Cyber Crime Center (DC3) Education Partnership
- Agreement between Dept. of Defense for excellence in digital forensics
- NSA Center of Academic Excellence in Cyber Research
- NSA Center of Academic Excellence in Cyber Defense
- Member of US CYBERCOM Academic Engagement Network
- Partnership with Cybersecurity Manufacturing Innovation Institute (led by UTSA)

DATA SCIENCE: VCU leads the Commonwealth Center for Advanced Computing

ACADEMIC PROGRAMS:

Undergraduate

- Bachelor of Science in Computer Science
  - Concentration in CyberSecurity
  - Concentration in Data Science
  - Concentration in Software Engineering
- Accelerated B.S./M.S. in Computer Science
- Post-baccalaureate certificate in Computer Science

Graduate

- M.S. in Computer Science (with specializations in data science and cybersecurity)
- M.S. in Data Science (with Department of Statistical Sciences and Operations Research)
- M.S. in Computer and Information Systems Security (with School of Business)
- Ph.D. in Computer Science
- Graduate Certificate in Cybersecurity
- Graduate Certificate in Data Science
- Bridge to M.S. (for students with non-CS backgrounds)
- International Partnerships for MS program

COMPUTING FOR ALL

Fundamentals of Computing online certificate for students with no STEM background. Students earn Digital Generalist credential after completing 3 courses from the selection of programming, data science, cybersecurity and software engineering & web development fundamentals.

FACTS & FIGURES

- VCU is a Minority-Serving Institution (MSI)
- In Dec. 2023, the National Science Foundation ranked VCU at 47th spot nationally for fiscal research expenditures.
- 886 undergraduate and 125 graduate students (24% Asian, 20% Black/African American, 8% Hispanic/Latino, 30% White, 11% International)
- 17 tenure/tenure-track faculty; 8 term/teaching faculty

EVENTS: Annual events attracting hundreds of students

- RamHacks, one of the top ranked and largest hackathons in the U.S.
- NSA funded GenCyber Bootcamp in cybersecurity
- Cyber4n6: industry-focused experiential learning program in digital forensics partnering with Virginia State Police
- Summer REU: Software Engineering, Robotics, AI/ML
- Programming competition for high school teams from across Virginia, D.C. and Maryland

FOCUS AREAS:

- Cybersecurity, Digital Forensics
- AI/ML, NLP, High Performance Computing
- Bioinformatics, Computational Biology, Biomedical Informatics
- IoT, Cyber-Physical Systems
- Software Engineering, Robotics
- Quantum Computing

Renowned Faculty:

- 1 IEEE Fellow
- 2 AIMBE Fellows
- 1 Fellow of Royal Society of Biology
- 1 Member of European Academy of Sciences and Arts
- 6 Faculty in world's top 2% of most-cited researchers in 2023
- CS faculty are funded by federal (NSF, NIH, DoD, DoE, DARPA, DHS, NSA, VHA, INL) and industry research awards (Google, Bank of America etc.)

MORE INFORMATION ABOUT VCU COMPUTER SCIENCE DEPARTMENT CAN BE FOUND AT EGR.VCU.EDU/DEPARTMENTS/COMPUTER

COLLEGE OF ENGINEERING
COMPUTER SCIENCE
VIRGINIA TECH

2024

86 Faculty

67 tenured/tenure-track
12 collegiate faculty
2 professors of practice
5 instructors

26 NSF Career Award Winners

$17.7M in Research Expenditures in 23/24

7 International Fellowships

2,687 Students

1,720 BS
- Majors in CS, Data Centric Computing, Secure Computing

133 MS
516 MEng
318 PhD

A Vibrant Culture of Experiential Learning

BURGS (Broadening Undergraduate Research Groups) serves students from diverse backgrounds by providing mentored research opportunities.

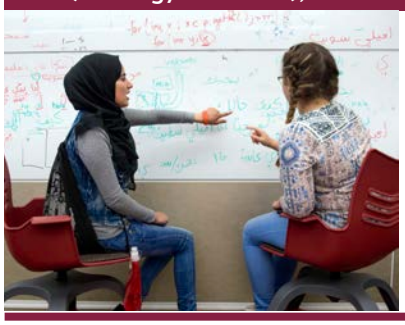
VTURCS (Virginia Tech Undergraduate Research in Computer Science) Symposium gives students a chance to showcase their research projects.

CS Study Abroad: Students can travel to Egypt and Switzerland to participate in unique opportunities that involve working with peer teams abroad.

Virginia Tech researchers and staff in the NSF COMPASS center: (top row, from left) Padma Rajagopalan (Chemical Engineering), X.J. Meng (Molecular Virology/VetMed), Lisa Lee (Population Health Sciences/VetMed), Patricia Raun (Theater Arts/Performance and Voice), T.M. Murali (CS, Director) and (bottom row, from left) Leslie Thornton-O'Brien (Program Coordinator), Kylene Kehn-Hall (Virology/Vet Med), and Anuj Karpatne (CS).

Faculty Updates

- T.M. Murali to direct the new $18M NSF Center for Community Empowering Pandemic Prediction and Prevention from Atoms to Societies (COMPASS)
- Margaret Ellis awarded the 2024 IEEE Computer Society Mary Kenneth Keller CS and Engineering Undergraduate Teaching Award
- CT Lu, Naren Ramakrishnan, and Dimitrios Nikolopoulos received 2024 IEEE Fellowships



TA Training Program Emphasizes Motivation for Learning

An NSF grant awarded to co-PIs in the VT School of Education and the CS Department provides funding to train teaching assistants in large introductory CS courses to utilize motivational instructional activities that lead to student success.

We are hiring teaching and research faculty for 2025-26!

For more information, click the QR code or visit us online at https://cs.vt.edu

LinkedIn & Instagram: @VT_CS

Online: cs.vt.edu

Department of Computer Science & Engineering

WashU McKelvey Engineering

ABOUT CSE AT WASHU

Researchers in the Department of Computer Science & Engineering thrive on interdisciplinary collaboration to discover new ways to improve all aspects of society. Faculty members collaborate regularly with colleagues at McKelvey School of Engineering, WashU Medicine and other schools at WashU. Together, they explore how artificial intelligence and machine learning can advance health care and other disciplines. They tackle challenging security and privacy issues — from the perspective of their fundamental roots in computer systems up to their implications for society. They are also leading initiatives on how to build resilient computer systems that can perform at a high level even when conditions are uncertain.

QUICK FACTS

Graduate programs

- PhD in Computer Science or Computer Engineering
- MS in Computer Engineering
- MS in Cybersecurity Engineering
- MEng in Computer Science & Engineering
- MS in Computer Science
- Graduate Certificate in Cybersecurity Engineering
- Graduate Certificate in Data Mining & Machine Learning

Interdisciplinary programs

- PhD in Computational & Data Science
- PhD in Imaging Science

Undergraduate programs

- BS in Business + Computer Science
- BS in Computer Engineering
- BS in Computer Science
- BS in Computer Science + Economics
- BS in Computer Science + Math
- BS in Data Science

Enrollments (Fall 2024)

- Undergraduate: 623 (majors)
- Master's: 181
- Doctoral: 96
- 29% of CSE students are women

47

Full-time faculty:
33 Tenured/tenure-track
14 teaching faculty

#1

Research in embedded & real-time systems
(csrankings.org.)

100%

of faculty tenured over the past five years have received the NSF CAREER Award or Young Investigator award

NEW FACULTY (2024-25)

Ilan Goodman
Lecturer

Michael Hall
Lecturer

Gregory Kehne
Assistant Professor

Qinghua Liu
Assistant Professor

Facilities that foster innovation and collaboration

McKelvey Hall, the home for CSE, features an open concept that permeates the design, fosters greater interactions and collaborations, and broadens the impact of computing.

RESEARCH NEWS

- In Nathan Jacobs' lab, maps are being combined with AI to create tools for urban modeling, navigation systems, natural hazard forecasting and response, climate change monitoring, virtual habitat modeling and other kinds of surveillance.
- CJ Ho's lab is participating in new research looking at human biases during AI training, which may have potentially important implications for real-world AI developers.
- Ulugbek Kamilov's lab developed a method that allows researchers to adapt deep learning models using a small set of training data, no matter the source of the data.
- Ning Zhang won a best paper award from USENIX for his paper that examines jailbreak prompts as one of the most effective methods to circumvent security restrictions on generative AI tools.

DEPT. OF COMPUTER SCIENCE

WAYNE STATE UNIVERSITY

ENGINEERING.WAYNE.EDU/CS

DETROIT, MICHIGAN

NEWS

Associate Professor **Daniel Grosu** was named an ACM Distinguished Member.

Professor **Nathan Fisher** chairs the 2024 IEEE Real-Time Systems Symposium.

The B.S. program is **ranked in the top 25%** by U.S. News and World Report, and the M.S. in AI is ranked #20 nationwide by TechGuide.com.

Three former Ph.D. graduates received **NSF CAREER awards** in the last decade: Lena Mashayekhy (2022), Sonia Haiduc (2019) and Denys Poshyvank (2013).

Three former Ph.D. students were **hired by R1 universities** as tenure-track assistant professors in the last three years.

Wayne State's **Cyber Defense Club** placed in the top 25% of Midwest teams competing in the Collegiate Cyber Defense Competition.

Ph.D. student **Sanaz Rabinia** received a 2024 National Center for Women & Information Technology (NCWIT) Aspirations in Computing Collegiate Award (honorable mention) for her research in edge computing.

NEW FUNDED RESEARCH

CNS Core: Medium: Parallel and Real-Time Multicore Scheduling for an Efficiently-Used Cache (PARSEC)

PIs: Abusayeed Saifullah, Nathan Fisher NSF: $570,016

Handling Coexistence of LPWAN with Other Networks

PI: Abusayeed Saifullah ONR: $302,308

Neural Conversational Agent for Automated Weight Loss Counseling

PI: Alexander Kotov NIH: $403,501

Elements: MVP: Open-Source AI-Powered MicroVessel Processor for Next-Generation Vascular Imaging Data

PIs: Zichun Zhong, Jing Hua NSF: $599,921

CAREER: Transforming Peer Code Review Environments for Code Learning and High-Quality Feedback

PI: Amiangshu Bosu NSF: $596,759

CSRANKINGS

RESEARCH AREA	U.S.	WORLDWIDE
Embedded and Real-Time Systems	#5	#10
Visualization	#38	#100
Computer Graphics	#52	#135
Computer Vision	#55	#160
Software Engineering	#67	#184
Artificial Intelligence	#76	#254
Mobile Computing	#79	#148

DEGREE PROGRAMS

- B.S./M.S./Ph.D. in Computer Science
- B.S. in Information Technology
- M.S. in Artificial Intelligence
- M.S. in Data Science and Business Analytics
- M.S. in Robotics
- Graduate Certificate in Mobility

FACTS AND FIGURES

1,205 UNDERGRADUATE STUDENTS

11.3% UNDERGRADUATE ENROLLMENT FROM 2022 TO 2024

204 DEGREES AWARDED IN 2023
155 B.S.
42 M.S.
7 PH.D.

32 FULL-TIME FACULTY

BETWEEN **$2.6-3M** IN ANNUAL R&D EXPENDITURES

23.8% FEMALE

12.2% BLACK OR AFRICAN-AMERICAN

4.1% HISPANIC OR LATINO

NEW FACULTY

Yi Zhu earned his Ph.D. in 2024 from the Department of Computer Science and Engineering, University at Buffalo. He was awarded as a Presidential Fellow at the University at Buffalo. He was also a visiting scholar at Purdue University. His research interests lie in the broad areas of security, machine learning, and cyber-physical systems, with a current focus on the security of the adopted machine learning models in autonomous vehicles. His research outcomes have been published in various top venues such as CCS, NDSS, USENIX Security, MobiCom and SenSys.

WELLESLEY
COMPUTER SCIENCE

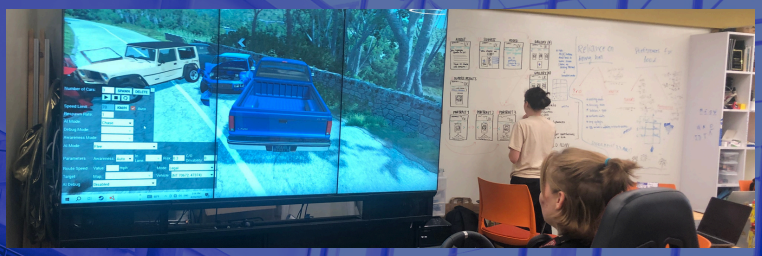
Wellesley College
COMPUTER SCIENCE

The Wellesley College Computer Science department consists of faculty with a range of research interests and an underlying dedication to a multi-faceted liberal arts education for our students. Our goal is to prepare students to engage with and lead in a world shaped by computation and data. We aim to provide students with theoretical, technical, and ethical foundations so that they can collaborate effectively to design and build applications and tools that make a positive impact for individuals, communities, and society. The educational and research missions of the department are tightly coupled.

Research

Research is integral to the computer science community at Wellesley. The educational and research missions of the department are tightly coupled: CS faculty regularly integrate their research into their courses at Wellesley and involve undergraduate students in their research projects. Computer science faculty at Wellesley lead vibrant programs of research in a broad range of fields:

Algorithms, systems, machine learning, artificial intelligence, computational linguistics, distributed computing, computational biology, data science, human-computer interaction, social computing, and games.



Inclusive Excellence

Our department aspires to be a leader in broadening participation in computing. We value diversity, equity and inclusion in the field of computing. Our community value statement and Broadening Participation in Computing plan are available online.

Faculty Research Highlights

Assistant Professor Brian Brubach applies algorithmic fairness to intractable problems in machine learning, optimization under uncertainty, and the implementation of democratic systems.

Assistant Professor Christine Bassem was awarded an NSF CRII grant titled "Mobility Coordination of the Crowds in Mobile Crowd Sensing Platforms". She has served as a member of the inaugural ACM Future of Computing Academy.

Assistant Professor Catherine Delcourt conducts research in social computing and human-computer interaction. Her research on prototyping for social wellbeing with diverse early social media users was recently published in ACM CHI 2021 and 2022.

Assistant Professor Yaniv Yacoby leads the Model-Guided Uncertainty (MOGU) Lab at Wellesley, where he develops deep Bayesian/Probabilistic Machine Learning methods for safety-critical domains. His research specifically focuses on developing methods to help us better understand, predict, and prevent suicide and related behaviors by developing new paradigms for clinician/patient-AI collaboration.

Associate Professor Eni Mustafaraj received an NSF award, titled "Pathways to Ethics of Technology in the Liberal Arts Curriculum", with a co-PI in the Wellesley Philosophy department, Julie Walsh. She also received NSF CAREER grant titled "Signals for evaluating the credibility of web sources and advancing web literacy".

Professor and co-Chair Orit Shaer published the book "Weaving Fire into Form: Aspirations for Tangible and Embodied Interaction" (ACM Books 2022). She received an NSF grant titled "US-German Research on Human-Automation Interaction for the Future of Work".

Assistant Professor Vinitha Gadiraju conducts research in human-computer interaction and accessibility, particularly for learning and education. Her research on building collaborative, equitable tools for people with disabilities was recently published in ACM CHI 2020 and 2021.

Assistant Professor Alexa VanHattum conducts research in systems and programming languages,with a focus on applying lightweight formal methods to the compiler stack. Her work on verifying instruction selection was recently accepted to ACM ASPLOS 2024.

Assistant Professor Carolyn Anderson explores the semantics of natural languages and programming languages using techniques drawn from cognitive modeling, deep learning, and formal semantics.

Contact

Co-Chair Sohie Lee (slee at wellesley.edu)
Co-Chair Orit Shaer (oshaer at wellesley.edu)
https://www.wellesley.edu/academics/department/computer-science

External Funding

NSF hhmi NIH

LANE DEPARTMENT OF COMPUTER SCIENCE AND ELECTRICAL ENGINEERING

Faculty / 2024 NEW FACULTY HIRES / FACULTY RESEARCH HIGHLIGHTS

Prashnna K Gyawali
Assistant Professor
AI and Cybersecurity, Healthcare

30

Total number of faculty in the department

Prof. Anurag Srivastava, working with Prashnna Gyawali, Amr El-Wakeel and Mohamed Hefeida, Jignesh Solanki and Dave Krovich, received nearly $1.75 million in funding for research for cybersecurity of artificial intelligence.

Prof. Don Adjeroh and Gianfranco Doretto are exploring the role AI may play in genome manipulation. Their current study uses AI to try to control the size, color and taste of genetically modified habanero peppers, while future applications for the research include using AI to prevent or treat diseases like cancer by manipulating genes.

Prof. Subramani received DARPA funding for developing dateless neural network to respond to a wide range of optimization problems.

Statler College of Engineering and Mineral Resources

AWARDS

Katerina Goseva-Popstojanova / Excellence in Cultivating Engagement and Belonging Award

Mohamed Hefeida / Dean's Leadership Fellow

Brian Powell / Outstanding Educator of the Year

Donald Adjeroh / Researcher of the Year and Outstanding Researcher Senior Level

Matthew Valenti / Technical Program Chair (2024 Institute of Electrical and Electronics Engineers International Conference on Communications)

Anurag Srivastava / Conference Chair (International Conference on Smart Grid Synchronized Measurements and Analytics)

Nima Karimian / NSF CAREER Award

DEGREES

BSCS: Computer Science (CS)
BS: Cybersecurity (CYBE)
MSSE: Online MS in Software Engineering
MSCS: Computer Science
PhD: Computer Science

Flexibility to take major and minor, dual major, or AoE in the same department

USCYBERCOM and AI

Members of the USCYBERCOM academic engagement network and AFRL Information Institute

CITeR and AI+HEC

NSF I/UCRC Center for Identification Technology Research and College level AI+Health Engineering Center

Faculty and student recognitions

CYBERSECURITY EXCELLENCE

CS and Cyber reached a significant high of **41%** in enrollment growth this year. Over the past five years, enrollment has grown by **77%.** The LCSEE is also designated as a DHS/NSA National Cybersecurity Center of Academic Excellence (NCAE).

Real-World Learning

Resources for hands-on and experiential learning, including a new cybersecurity competition collaboration room and a newly funded AWS-based Cybersecurity Range, as well as Lane Learning and Mentoring Center for tutoring students

WOMEN IN STEM

Software engineering student Morgan Bartley, the team's Equity in Mobility Lead, received first place in the Stakeholder Identification and Track Selection Report category and second place in the General Motors Women in STEM Presentation for the EcoCAR Competition.

COMPUTING RESEARCH

Mallory Anderson received an Honorable Mention for the 2023-2024 Computing Research Association Outstanding Undergraduate Researcher Award (URA).

TOP 2

WVU finishes 2nd in the F1 Tenth International Competition and 2nd at the 2024 International Mars Rover Competition in Utah.

West Virginia University.
BENJAMIN M. STATLER COLLEGE OF ENGINEERING AND MINERAL RESOURCES

LCSEE.STATLER.WVU.EDU

Computer Science

WHITMAN COLLEGE

Computer science enables students to ask new questions and seek new answers in a wide range of fields, such as art, literature, biology, economics, and sociology. Students at Whitman benefit from small classes, which give opportunities to work closely with faculty, learn and create with other students, practice explaining technical ideas, and consider the role of computing in society. Our curriculum provides a rigorous introduction to the foundations of computer science as well as contemporary applications. Senior year culminates with a team capstone project for a client and an oral exam of core computing concepts and their application in each team's capstone.

Janet Davis Professor and Microsoft Chair - HCI, Ethics, Persuasive technology

John Stratton Associate Professor - HPC, Systems, Performance optimization

William Bares Associate Professor - Immersive Experiences, CS Education

Jordan Wirfs-Brock Asst. Prof. - Sonification, Informatics, Research through design

Sachintha Pitigala Visiting Asst. Prof. - Information Retrieval, Nat'l Language Processing

Richard Torres Molina Visiting Instructor - Software Engineering, Machine Learning, HCI

Course Highlights

Introduction to Data Science
Data Visceralization
Human-Computer Interaction
Computer Systems Programming
Theory of Computation
AI & Sustainable Development
Simulation Methods
Software Design
Capstone Project I and II

Student Highlights

Terence Mahlatini '25 and Uli Raudales '25 presented a poster at CCSC-NW about simulations of disease propagation and developmental gene expression. This work was directed by John Stratton.
Rhys Sorenson-Graff '24 and Jordan Wirfs-Brock will present “Integrating Annotations into the Design Process for Sonifications and Physicalizations” at IEEE Visualization & Visual Analytics.
Recent graduates are employed by Microsoft, Google, Amazon, Juniper, Oracle, Boeing, Chase, ...

Department Highlights

Jordan Wirfs-Brock was awarded an NSF grant to to develop tools that enable people to record personally meaningful sounds in their everyday lives.
The College signed an agreement with MulticoreWare Inc to provide CS students with on-campus internships.

Growth

Since its founding in 2014, the CS Department has grown from its first two majors graduated in 2018 to 23 in the class of 2025. The class of 2026 is gender-balanced, with 10 women and 11 men.

https://www.whitman.edu/academics/majors-and-minors/computer-science

Williams
Computer Science




Jeannie Albrecht


Dan Barowy


Jim Bern


Rohit Bhattacharya


Stephen Freund


Mark Hopkins


Iris Howley


Bill Jannen


Katie Keith


Sam McCauley


Kelly Shaw


Shikha Singh


Aaron Williams

Highlights:

- Faculty of thirteen professors
- Research interests include artificial intelligence, machine learning, natural language processing, parallel processing, human-computer interaction, algorithms, complexity theory, distributed systems, storage, robotics, and programming languages
- 70 CS majors per graduating year
- Hiring two tenure-track positions in 2024-2025

http://www.cs.williams.edu

Yale ENGINEERING

Yale Computer Science

Recent major faculty recognition:

Yongshan Ding
NSF CAREER Award

Julie Dorsey
Eurographics Fellow

Joan Feigenbaum
International Association for Cryptologic Research (IACR) Fellow

Institute of Electrical and Electronics Engineers (IEEE) Fellow

Marynel Vázquez
Air Force Office of Scientific Research Young Investigator

Brian Scassellati
Association for the Advancement of Artificial Intelligence (AAAI) Fellow

With 36 tenure-track faculty and over 140 doctoral students, Yale Computer Science performs research over a wide range of computing theory, systems, and applications.

Spotlight: Newly Funded AI/ML Research in 2024

- **Quanquan Liu:** "Gemini-Accelerated Software Performance Engineering," Google Academic Research Award
- **Ruzica Piskac:** "Democratizing the Law - Using LLMs and Automated Reasoning for Legal Reasoning," Amazon
- **Daniel Rakita and Brian Scassellati:** "Robot Manipulation in Densely Cluttered Environments," Office of Naval Research
- **Rex Ying:** "Explainable Multi-modality Time Series Question Answering System," NSF
- **Rex Ying and Smita Krishnaswamy:** "Contextualized and Multimodal Foundation Models for Graph Data in Scientific Discovery," NSF
- **Rex Ying:** "Diff H: Hyperbolic Text-to-Image Diffusion Generative Model," Amazon
- **Andre Wibisono:** "CIF: Medium: An Algorithmic Theory of Hamiltonian Dynamics for Sampling, Optimization, and Games," NSF

cpsc.yale.edu

LASSONDE SCHOOL OF ENGINEERING | YORK U

Department of Electrical Engineering and Computer Science
(Toronto, Canada)

The Department of Electrical Engineering and Computer Science in the **Lassonde School of Engineering** at York University has a clear mission: to offer students exceptional programs and learning experiences to make a positive impact on the world and promote scholarship and discovery in a research-oriented environment.

With research and programs that cover a wide range of electrical and computing technologies, we address Canada's technological future. Our strengths include artificial intelligence, robotics, computer vision, data science, human-computer interaction, virtual reality, cyber security, software engineering, networks, communications, power & renewable energy, micro/nanoelectronics, medical devices, and many others.

Innovative Research Projects:

> **Connected Minds Initiative:** $105.7M project co-led by EECS, exploring neural and machine systems for societal impact.

> **Geomagnetic Disturbance in Modern Societies and Technological Infrastructures:** $1.65M NSERC-CREATE grant aiming to protect power systems against extreme space weather and geomagnetic storms.

Selected Research Units:

> **Centre for AI & Society (CAIS)**

> **Centre for Vision Research (CVR)**

> **Innovation Computing at Lassonde (IC@L)**

> **Mobility Innovation Centre (MOVE)**

By the Numbers

80+ Full-Time Faculty Members

3800+ Undergraduate and Graduate Students

New Markham Campus

York University's new Markham Campus is now open, offering cutting-edge programs in Electrical Engineering and Computer Science. Located in a thriving tech hub, it features innovative and industry-aligned academic programs including Computer Science for Software Development, Digital Technologies, and First Year Engineering. This state-of-the-art facility provides students with forward-thinking education and valuable industry connections in the heart of the York Region.

CRA

Computing Research Association

The Computing Research Association (CRA) is incorporated in the District of Columbia and operates as a 501(c)3 organization under the Tax Code of the U.S. Internal Revenue Service.

If you are interested in having your institution become a member of CRA,

please e-mail members@cra.org.