

# COMPUTING RESEARCH NEWS



Computing Research Association  
Uniting Industry, Academia and Government to  
Advance Computing Research and Change the World.

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## CRN At-A-Glance

### CRA Distinguished Service and A. Nico Habermann Awards

The Computing Research Association invites nominations for the 2021 CRA Distinguished Service Award and A. Nico Habermann Award.

*See page 2 for full article.*

### CRA-WP DREU Application Opening

In mid-October CRA-WP will begin accepting student and mentor applications for the Summer 2021 session. Learn more about first hand experiences with the DREU program [this video](#).

### CRA CV Database

The CRA *CV Database* is now open for the 2020-21 recruiting season.

*See page 6 for full article.*

### Are You Working on the Taulbee Survey?

The CRA Taulbee Survey is in progress.

The deadline for the salary section is **November 24**.

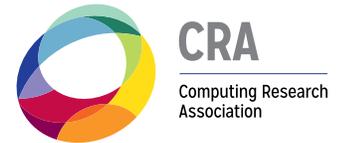
**Late December:** Preliminary salary report available to participants.

**January 20, 2021:** Due date for the main Taulbee section.

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# Nominations Open for CRA Distinguished Service and A. Nico Habermann Awards



The Computing Research Association invites nominations for the 2021 CRA Distinguished Service Award and A. Nico Habermann Award.

## Distinguished Service Award

CRA presents an award, usually annually, to a person or multiple people who have made an outstanding service contribution to the computing research community. This award recognizes service in the areas of government affairs, professional societies, publications or conferences, and leadership that has a major impact on computing research.

### Guidelines for Nominators

The quality and extent of computing research conducted by the candidate is not taken into consideration in making this award, and material about the candidate's research accomplishments should not be included in the nomination material. Service considerations are limited to those that relate to the computing research community. Thus, for example, government service on behalf of the computing research community or educating graduate students for research careers would count.

However, the selection committee will not give consideration to service in undergraduate education unless it relates directly to computing research.

Viable candidates are likely to be senior members who have participated in editorial boards and planning or programming committees. While it is not objectionable to mention this kind of service in the nomination, it is not likely to be a key factor in the selection process unless the applicant's service is well above and beyond that of other senior members.

Longevity, effectiveness, breadth, and community-wide scope of service are all important in the award selection. The nomination letter must make an argument why the candidate deserves the award, focusing on a few key contributions and providing evidence for these claims. The nomination should not simply consist of a list of accomplishments.

Nominators must obtain three to four letters of support from distinguished members of the computing research community who are familiar with the candidate's service accomplishments and must include a copy of the candidate's current curriculum vitae. [Submit nominations here.](#)

## A. Nico Habermann Award

CRA presents an award, usually annually, to a person or multiple people who have made outstanding contributions aimed at increasing the numbers and/or successes of underrepresented groups in the computing research community. This award recognizes work in areas of government affairs, educational programs, professional societies, public awareness, and leadership that has a major impact on advancing these groups in the computing research community. Recognized contributions can be focused directly at the research level or at its immediate precursors, namely students at the undergraduate or graduate levels.

### Guidelines for Nominators

Longevity, effectiveness, breadth, and community-wide scope of service, rather than great contributions within one institution, are important in the award selection. The nomination letter must make an argument for why the candidate deserves the award, focusing on a few key contributions and providing evidence for these claims. The nomination should not simply consist of a list of accomplishments. Nominators must obtain three to four letters in support of the nominee from distinguished members of the computing research community who are familiar with the candidate's service, with particular emphasis on its community-wide scope. The nomination must include a copy of the candidate's current curriculum vitae. [Submit nominations here.](#)

Questions or comments may be addressed to [awards@cra.org](mailto:awards@cra.org).

**The deadline for receipt of nominations is January 15, 2021.**

Current members of the CRA Board of Directors are not eligible for these two awards.

# Nominations Open for 2021 CRA-E Undergraduate Research Faculty Mentoring Award



**CRA-E**

Computing Research Association  
Education

The **CRA-E Undergraduate Research Faculty Mentoring Award** honors faculty members in computing who have made a significant impact on students they have mentored. It recognizes those who have provided exceptional mentorship and undergraduate research experiences and, in parallel, guidance on admission and matriculation of these students to research-focused graduate programs in computing.

Eligible nominees are full-time faculty members at North American academic institutions. Faculty members include tenured and tenure-track faculty, instructors, and professors of the practice. Current members of CRA-E are not eligible to be a nominee or to serve as a nominator. Nominations must be submitted by a faculty member or researcher in the computing field.

**Nominations** are due **Friday, November 20, 2020 by 5 PM (ET)**. Winners will be notified by early February 2021. Click [here](#) to view the 2020 award winners and [here](#) to view the FAQs.

The award is given annually, and multiple recipients may be awarded. The selection committee will give appropriate consideration to different types of schools and mentors at different stages of their careers. The awardees will receive travel support to attend the meeting at which they accept the award.

## Evaluation criteria

The committee will evaluate the evidence of: undergraduate student mentoring during the most recent 10 years (being sensitive to the size of the program) including the number of students enrolling in research-oriented M.S. or Ph.D. programs; professional development provided to the students mentored; diversity of students; and impact and success of the students' research.

## The 2021 selection committee includes:

Denys Poshyvanyk (William & Mary), **Chair**  
Monica Anderson (University of Alabama)  
Margaret Burnett (Oregon State)  
Maria Gini (University of Minnesota)

# Attend the Upcoming Departmental BPC Plan Workshop Starting on October 29



The Computing Research Association (CRA) is hosting the third workshop in its [series of Departmental BPC Plan workshops](#) starting on October 29, 2020. All departments with faculty submitting CISE proposals are welcome to attend this workshop.

The structure for this workshop is as follows:

- Presentation Day - October 29, 2020
- Writing Day #1 - November 12, 2020 (optional)
- Writing Day #2 - December 3, 2020 (optional)

On the presentation day, academic departments will learn about the NSF CISE requirements and expectations for BPC Plans. The workshop will also cover in-depth discussions on BPC Plan components and have BPC experts available for Q&A.

The two writing days are optional, but strongly encouraged. For each writing day, attendees will dedicate a few hours to writing a BPC plan with available assistance from BPC experts. Of importance, you are not required to attend the presentation day if you would like to attend the writing days. For example, previous workshop participants could use these days to further develop their drafts.

[Click here to sign up for the workshop](#). The deadline to sign up for the presentation day is 11:59 pm (ET), October 25, 2020. Those signing up for the writing days only will be accepted on a rolling basis. All notifications and action items related to the workshop will be sent in advance.

Sincerely,  
BPC Plan Workshop Steering Committee

*Nancy Amato, University of Illinois at Urbana-Champaign*  
*Tracy Camp, Colorado School of Mines*  
*Mary Hall, University of Utah*  
*Colleen Lewis, University of Illinois at Urbana-Champaign*  
*Ronald Metoyer, University of Notre Dame*

# Call for Submissions: Departmental BPC Plans

The Computing Research Association (CRA) and the National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) are calling upon the academic community to create and submit Departmental BPC Plans to [BPCnet.org](https://www.bpcnet.org).

Departmental BPC Plans are important because they help departments:

- reaffirm their commitment to equity and inclusion,
- identify and organize their BPC related goals and activities,
- and support PIs in their department who are submitting CISE proposals [requiring a Project BPC Plan](#) at the time of award.

## Haven't started a Departmental BPC Plan?

If you haven't started your Departmental BPC Plan, there are a few things you can do to start.

1. Review the BPCnet.org [Departmental BPC Plan checklist](#).
2. Check out some [resources for BPC plans](#) to support the writing process.
3. Look at [verified Departmental BPC Plans](#) available as examples.
4. Download your [institution's IPEDS data](#) from [BPCnet.org](https://www.bpcnet.org).
5. Attend an upcoming [BPC Plan workshop](#).

## Want feedback on a draft?

[BPCnet.org](https://www.bpcnet.org) is offering a consulting service for departments looking to get feedback on a draft of their plan. PIs creating Project BPC Plans may also use this service to get feedback on their draft plan prior to submission to NSF.

[Click here to schedule an appointment](#) with a BPC consultant.

## Is your Departmental BPC Plan ready to submit?

If your department has finished creating your BPC Plan, please [submit it to BPCnet](#) for verification. BPCnet.org will verify that each plan meets or exceeds the [recommendations for Departmental BPC Plans](#) prior to publishing. These recommendations were created as part of NSF/CISE-funded engagements with members of the computer and information science and engineering community.

Once your plan has been verified, BPCnet.org will ask to [publish your verified plan](#). Publishing your verified plan to BPCnet.org is an important service to the community, as it provides your plan as an example to other departments while also showcasing your commitment to BPC. Publishing your plan on BPCnet.org is also important for PIs in your department, as they will be able to link to the Departmental BPC Plan in the Project BPC Plan component for their CISE proposal.

## CRA's *CV Database* Initiative Turns Two

As a first step to address **recent recruiting challenges** in the computing research community, the Computing Research Association (CRA) launched the *CV Database* initiative in Fall 2018. This initiative provides a database of candidates for academic and industrial/government laboratory research positions. It is searchable by most CRA member institutions.

During its second year the *CV Database* received 186 completed applications (out of 316 started). In comparison with previous year, the number of applications completed almost doubled. The *CV Database* was actively queried by at least 126 recruiters (a majority of CRA membership), who downloaded a total of 232 CVs.

Recruiting continues to be **one of the top computing research community challenges**. Thus, CRA plans to strengthen the *CV Database* initiative and take additional actions in 2020-21.

**What's new this year?** The CRA *CV Database* will add signaling mechanisms to improve the situation:

- Each candidate will have a few (e.g., 5) tokens to signal preferences for job-opportunities.
- In March 2020, a "Still looking" checkbox was added and filled out by candidates to let recruiters know if they were still actively searching for positions. CRA will continue using this feature.

The *CV Database* is now open for applications for the 2020-21 recruiting season. It can be accessed through <https://cra.org/cv-database/>. Candidates will be able to upload their resumes, research and teaching statements, job objectives and other preferences, and a link to a short presentation video. Recruiters will be able to search this information and are encouraged to contact candidates.

**Please encourage all of your finishing PhD students looking for academic or industrial/government laboratory research positions to post and complete their applications soon, before the computing research recruiting season begins.**

In late-October 2020, recruiter access to the *CV Database* will be made available to all CRA academic members. Additionally, industrial and government laboratory CRA member institutions that sponsor Grad Cohort 2021 at the silver level and above will receive access.

We hope that your PhD students and your Faculty Recruiting Committee find this service valuable. For further information visit: <https://cra.org/cv-database/#Info>.

Questions should be directed to [cvdatabase@cra.org](mailto:cvdatabase@cra.org), Prof. Josep Torrellas ([torrella@illinois.edu](mailto:torrella@illinois.edu)), Prof. Shashi Shekhar ([shekhar@umn.edu](mailto:shekhar@umn.edu)), or Prof. Rachel Pottinger ([rap@cs.ubc.ca](mailto:rap@cs.ubc.ca)).

### Related Products:

1. **CRA's *CV Database* Initiative Turns One**, CRA Bulletin, September 4th, 2019.
2. ***New from CRA: Database of Candidates for Academic and Industrial/Government Laboratory Positions***, Computing Research News, 30(10), Computing Research Association, Nov. 2018.
3. ***Improving Faculty Recruiting in the Computing Community: A Panel Discussion***, 2018 CRA Conference at Snowbird, July 17, 2018.
4. C. Willis, ***2018 Computer Science Tenure-Track Faculty Hiring Outcomes***, CRA Bulletin, Computing Research Association, July 11, 2018.
5. B. Bizot, ***Articles Addressing Shortage of CS Professors Across Many Institutions***, CRA Bulletin, Computing Research Association, May 9, 2018.



## CRA-WP 2020 Virtual Summer REU

By Erik Russell,  
CRA Director of Programs

The Computing Research Association and organizers of the [Distributed Research Experience for Undergraduates](#) (DREU) Program made the decision to modify the 2020 DREU program from an onsite format to a virtual one. Given the devastating impact of the COVID-19 virus we felt offering a virtual Distributed Research Experience for Undergraduates (vDREU) would better ensure the safety of all participants while continuing to provide research-intensive opportunities to students considering advanced degrees in computing.

Twenty-eight students worked with thirteen faculty mentors on virtual research projects in a number of areas. In addition to offering students and mentors the opportunity to participate in a virtual research experience we will be providing students with a travel budget to be used for a follow-up onsite REU activity that is coordinated with their mentor at a later date.

The program has some tips for those also starting virtual REU programs.

- Make an Onboarding Plan (proposed schedule, tasks, reading list, discuss meeting solutions)
- Make Yourself and Your Team Available (set up regular meetings and check ins, be responsive to emails/chats, arrange virtual social time)

- Share Information and Resources (help your mentee understand the bigger picture of their research project, help them think through educational and career goals)

For more on running successful virtual REUs, see the Expanding the Pipeline article, “CAHSI introduces National Virtual Research Experience for Undergraduates” that also appears in this issue.

Other resources for remote collaboration:

- [Accessibility and Universal Design of Online Meetings](#)
- [Slides](#) from the University of Washington Undergraduate Research Program with advice about mentoring
- [Best Practices for Mentors](#)

CRA’s Committee on Widening Participation (CRA-WP) and the DREU program partner with other organizations committed to broadening participation in computing to administer their summer REU programs including, the NSF funded Institute for African-American Mentoring in Computing Sciences (iAAMCS), and the NSF funded [Alliance for Access to Computing Careers \(AccessComputing\)](#).

The DREU Program is currently led by Nancy Amato, *University of Illinois, Urbana-Champaign*, Monica Anderson, *University of Alabama*, Chad Jenkins, *University of Michigan*, Ming Lin, *University of Maryland at College Park*,

Raja Kushalnagar, *Gallaudet University*, Richard Ladner, *University of Washington*, and Amanda Stent, *Bloomberg*. They are assisted by Brianna Blaser, *University of Washington*, Daniela Cárdenas, *Computing Research Association*, and Erik Russell, *Computing Research Association*.

### DREU Application Opening

In mid-October CRA-WP will begin accepting student and mentor applications for the Summer 2021 session.

Mentors - Are you a faculty member interested in mentoring undergraduates and having them contribute to a research project? Consider applying to the DREU program.

Students - Are you an undergraduate student interested in a summer research experience? Are you considering pursuing an advanced degree? Consider applying to the DREU program.

**Learn more about first hand experiences with the DREU program in this video.**



This material is based upon work supported by the National Science Foundation under Grant Number (1840724). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

# Expanding the Pipeline- CAHSI introduces National Virtual Research Experience for Undergraduates



**CRA-WP**

Computing Research Association  
Widening Participation

*By Patricia Morreale (Kean University), Elsa Villa (The University of Texas at El Paso),  
and Ann Gates (The University of Texas at El Paso)*

To identify and broadly engage the next generation of computer science researchers, the Computing Alliance of Hispanic Serving Institutions (CAHSI), an NSF INCLUDES Alliance<sup>1</sup>, piloted a national virtual Research Experience for Undergraduates (vREU) during the summer of 2020. Funded by an NSF RAPID grant, the pilot provided undergraduate research experiences for 50 students and 20 faculty drawn from 20 colleges and universities widely distributed throughout the continental U.S. and Puerto Rico. The program used the Affinity Research Group (ARG) model to guide faculty mentors throughout the experience. ARG is a CAHSI signature practice with a focus on deliberate, structured faculty and student research skills development. At weekly meetings, Drs. Morreale, Villa, and Gates discussed and provided resources for specific skills that were appropriate at a specific point in time of a student's research experience. Faculty mentors put skills development into immediate practice throughout their summer research program.

The CAHSI vREU pilot was inspired by the NSF-funded CAHSI INCLUDES Community Workshop, "Building CISE Research Capacity at Hispanic-Serving Institutions," held in July 2019 that brought together Hispanic researchers and researchers from Hispanic Serving Institutions (HSIs) to make recommendations on how to increase representation of Hispanics and HSIs in the NSF Computer and Information Science & Engineering (CISE) directorate's portfolio. One of the recommendations was to extend summer REUs to those students who might be excluded through alternative approaches to physical travel and residency due to year-round jobs, family obligations, lack of short-term housing options, and other insurmountable logistics. Doing so would enable a larger, more representative national group of undergraduates to participate. Summer REUs are vital to the national interest, as they serve as a key identification point for the next generation of graduate students and researchers.

Responding to this, CAHSI's vREU program distinctively uses the Affinity Research Group (ARG) model for the mentor-mentee engagement, and the vREU faculty mentors become part of a cohort community themselves. CAHSI vREU faculty mentors meet weekly to discuss best practices for working with undergraduate researchers, share ideas, and receive mentoring training and materials for use with their students in the following week. The CAHSI vREU model shares a research focus with other models, such as CRA-WP's Collaborative REU (CREU, paused in 2018), which paired faculty and students from the same school, and the Distributed REU (DREU), which identifies a host faculty member and institution and supports students who apply to travel and work with the host faculty member on the host campus. However, CAHSI's vREU program is distinguished from these other programs because of its use of the Affinity Research Group (ARG) model for the mentor-mentee engagement while forming a community among the vREU faculty mentors themselves. The CAHSI vREU methodology supports constructive critique and the deliberate development of research skills without requiring student relocation, enabling a larger community of students and faculty to participate and move undergraduates towards graduate study. The research topics investigated in the CAHSI vREU pilot are rigorous and include machine-learning, artificial intelligence, computer vision, dynamical systems, and healthcare informatics, among other topics.

A highlight of this summer work, in addition to the identification of new undergraduate student researchers in computing, is the development of a faculty cohort trained in best practices for the ARG cooperative-team framework including building positive interdependence, promotive interaction, accountability, group and professional skills development, and reflection. While the COVID-19 circumstances have been devastating and natural disasters, such as the hurricanes in Puerto Rico and wildfires in California and Oregon have been adversely impactful, the CAHSI vREU model has allowed students, during the summer of 2020, to continue to

<sup>1</sup> This material is based upon work supported by the National Science Foundation under Grant Nos. 2034030 and 1834620. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.



## Expanding the Pipeline - CAHSI (*continued*)

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pursue their goals, with empathic faculty mentoring. While the faculty members themselves may or may not have participated in undergraduate research, or followed an undergraduate path like their current students, the ARG model provides the faculty with techniques identified as contributing to student persistence and success. Outcomes observed include students asking their faculty mentors about graduate school and future research opportunities, neither of which they knew of before participating in the CAHSI vREU program. An additional workshop for vREU students and faculty focuses on graduate student applications, scholarship applications, and expectations for future success.

The vREU pilot was designed as a collaborative effort with Dr. Ann Gates, the CAHSI national INCLUDES lead and Vice Provost of Faculty Affairs at The University of Texas El Paso (UTEP); Dr. Elsa Villa, CAHSI lead for Capacity Building and Director, the UTEP Center for Education Research and Policy Studies in the College of Education; Dr. Patricia Morreale, Professor and Chair at Kean University and lead of the CAHSI INCLUDES North region; and CAHSI regional leads. Funded in July 2020, the CAHSI vREU pilot is based on the CAHSI national design for collective impact, using the West, Southwest, North, and Southeast regional university communities of faculty leads, researchers, and students to personalize the faculty and student development experiences. The 8-week program had a goal to deliberately integrate students' research and professional skills by working on a research project. "We're excited to share the vREU opportunity and ARG training with our growing community," said Dr. Gates, "and we're looking forward to see the exciting research that will come from this summer." Student participants worked in virtual teams with faculty mentors to develop their research projects. The outcome of the program will include a final presentation of research posters at the Great Minds in STEM Conference in October 2020, as well as virtual display on the CAHSI website ([www.cahsi.org](http://www.cahsi.org)). The faculty and student development materials from this activity will be added to the CAHSI Signature Practices available on CAHSI's website and used nationally for broadening participation in computing.

Established in 2006 with six universities, CAHSI has grown to include over 60 partners. In support of the CAHSI vision that "by 2030, Hispanics will represent 20% or more of those who earn credentials in computing," CAHSI works to grow and sustain a networked community committed to recruiting, retaining and accelerating the progress of Hispanics in computing. Because of its evidence-based impact, CAHSI has been nationally recognized in 2015 by the White House Initiative on Educational Excellence for Hispanics and as a Bright Spot in Hispanic Education and by *Excelencia in Education* through its Growing What Works database.

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### **Southwest:**

The vREU faculty mentors from the Southwest Region, led by Dr. Enrico Pontelli from New Mexico State University (NMSU), include one faculty from NMSU (Dr. Wang), three faculty from the University of Texas at El Paso (Drs. Kreinovich, Ceberio, and Badreddin), two faculty from the University of Houston Downtown (UHD) (Drs. Shastri and Lin), and two faculty from Texas A&M Corpus Christi (Drs. Baca and Rangel). Twelve undergraduate students from five institutions in the Southwest region (UTEP, NMSU, UT Rio Grande Valley, Texas A&M University-Corpus Christi, and UHD) are being mentored by faculty from CAHSI institutions across the country.

### **West:**

The vREU faculty mentors from the West Region, led by Dr. Mohsen Beheshti from California State University Dominguez Hills (CSU-DH), including one faculty from CSU-East Bay (Dr. Grewe), one faculty from CSU-LA (Dr. Amini), two faculty from CSU-Fresno (Drs. Pirouz and Tayeb), two faculty from CSU-DH (Drs. Celly and Izaddoost), and one faculty from SFSU (Dr. Aljarrah). Eleven undergraduate students from six institutions (CSU-Fresno, San Francisco State University, San Jose State University, University of California Merced, CSU-East Bay, and CSU LA) in the West region are being mentored by faculty from CAHSI institutions across the country.



## Expanding the Pipeline - CAHSI (*continued*)

### **Southeast:**

The Southeast Region, led by Dr. Nayda Santiago from the University of Puerto Rico Mayaguez (UPRM) involve one faculty mentor from UPR Arcibo (Dr. Valenzuela) and another from the University of South Florida (Dr. Andujar). Twenty-two undergraduate students from UPR-Mayaguez, UPR-Arecibo, Interamerican University, and UPR Rio Piedras in the Southeast region are being mentored by CAHSI institutions across the country.

### **North:**

The North Region, led by Dr. Patricia Morreale from Kean University (KU), involves two faculty mentors from KU (Drs. Franke and Li), one from New Jersey Institute of Technology (Dr. Daher), and one from Northeastern Illinois University (Dr. Sztainberg). Seven undergraduate students from Kean University are being mentored by CAHSI institutions across the country.

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This material is based upon work supported by the National Science Foundation under Grant 2034030. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.

### **About the Authors**

Ann Q. Gates, Ph.D., is Vice Provost for Faculty Affairs at the University of Texas at El Paso and Director of the CAHSI INCLUDES national alliance. Gates received the CRA's 2015 A. Nico Habermann Award, and she has co-authored numerous publications on the Affinity Research Group model.

Patricia Morreale, Ph.D., is a Professor of Computer Science and Director of the School of Computer Science and Technology at Kean University. She has served on CRA-E's Undergraduate Research Faculty Mentoring Award Committee and is the lead of the CAHSI INCLUDES North region.

Elsa Villa, Ph.D., is a research assistant professor at The University of Texas at El Paso, and a member of the NSF-funded Computing Alliance of Hispanic Serving Institutions (CAHSI) INCLUDES national alliance backbone team where she serves as capacity building manager and member of the data management team. Villa is lead author of the *Journal of Engineering Education* 2013 publication "Affinity Research Groups in Practice: Apprenticing Students in Research" and co-author of the book *The Affinity Research Group Model: Creating and Maintaining Effective Research Teams*, published in 2009.

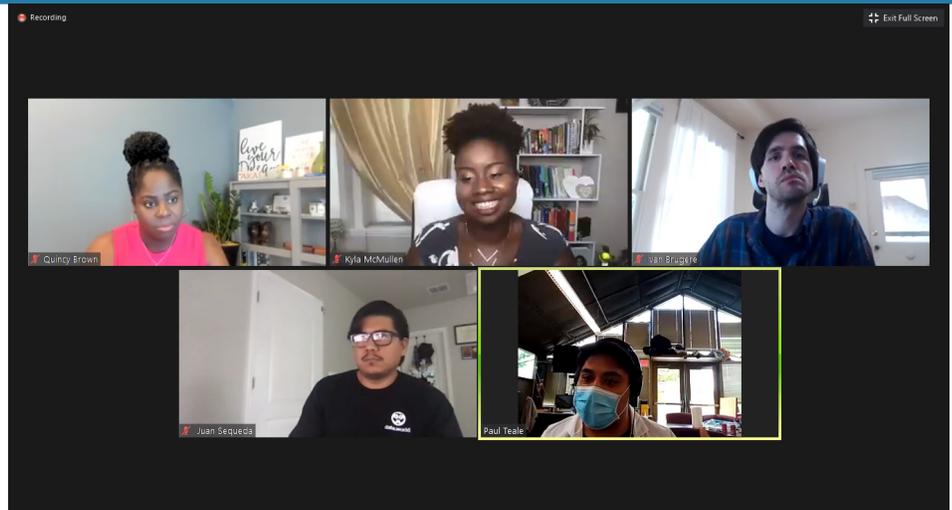
# Expanding the Pipeline - 2020 ACM Richard Tapia Celebration of Diversity in Computing Conference



**CRA-WP**  
Computing Research Association  
Widening Participation

By Jerri Barrett, CMD-IT

The 2020 ACM Richard Tapia Celebration of Diversity in Computing conference celebrated the technical contributions and career interests of diverse people in computing fields. The conference’s goal is to help all attendees – especially students – build vital connections that will serve them well both professionally and personally. The conference aims to provide an educational and supportive networking environment for underrepresented groups across the broad range of computing and information technology, from science to business to the arts to infrastructure. The Tapia 2020 conference theme, Inclusion Drives Innovation, highlighted the critical role that diverse perspectives play in driving innovations in computing and technology. Creating teams, organizations, and societies that are inclusive and



Thursday morning plenary panel, “Tapia Student Attendees, Now Early Career Professionals.”

respectful of differences leads to greater innovations that benefit the world.

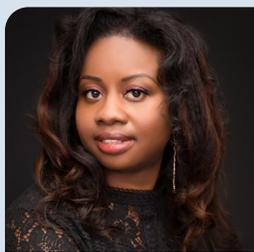
This year, for the first time, the Tapia conference was held virtually. The virtual conference hosted over 3600 registered attendees from September 16-18th, 2020. Tapia 2020 began with its preconference

Student Professional Development Workshop with panelists presenting key strategies for resume writing and doing a virtual job interview.

The opening Fireside Chat was titled “The Deep Learning Revolution and Why We Need Your Help” and featured speakers Jeff Dean of Google, Navdeep Jaitly of D.E. Shaw Group, Aine Shivan of Qualcomm and Beata Shahriari of JP Morgan Chase. The first day’s Plenary Speaker talk by Nashlie Sephus, the Applied Science manager for Amazon’s Artificial Intelligence (AI), focusing on fairness and identifying biases in the technologies, was titled “Bias in AI, Why Should I Care?” The Thursday morning plenary panel was titled “Tapia Student Attendees, Now Early Career Professionals.” The panel featured past student attendees of the Tapia conference including Ivan Brugere from the University of Chicago, Juan Sequeda, the Principal Scientist of data.world, Kyla McMullen, an Assistant Professor at the University of Florida and Paul Taele, Instructional Assistant



Ivan Brugere



Kyla McMullen



Colin Parris



Juan Sequeda



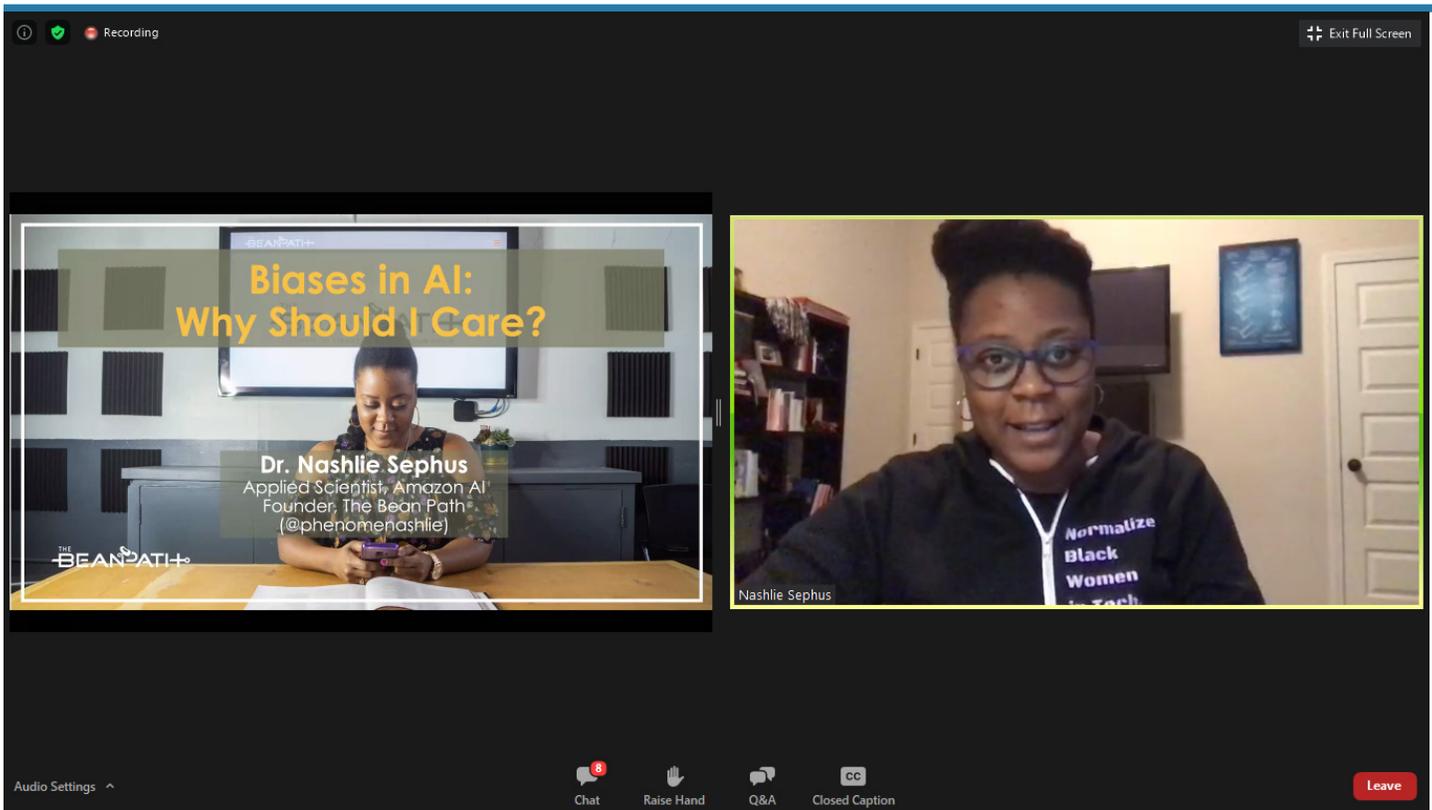
Nashlie Sephus



Paul Taele



## Expanding the Pipeline - Tapia (continued)



### Plenary talk by Nashlie Sephus, "Bias in AI, Why Should I Care?"

Professor at Texas A&M University (TAMU)'s Department of Computer Science and Engineering, and the Assistant Lab Director of the Sketch Recognition Lab at TAMU. The Ken Kennedy Lecture, "How Digital Technology Will Shape the Future of Business," was presented by Colin Parris, Senior Vice President and Chief Technology Officer, GE Digital.

The conference featured over seventy panels, workshops, technical talks, and birds of a feather sessions. Birds of a Feather sessions at the Tapia Conference provide an informal, town-hall-like forum for the discussion of technical or social issues among interested parties and they provide a venue for communities (existing or dynamically organized) to network, leading to potential collaborations. Tapia 2020 Birds of a Feather sessions included

"Hispanics in Computing", "Students Voices: Pandemic, Social Justice, Virtual Learning and Self Care", "Diversity includes Disability", "A new class of teaching faculty: No PhD required", and "On Being the First or the Only: Overcoming Isolation and Sharing Techniques to Cope and Thrive in Any Environment."

Panels and workshops were focused on three areas – Industry, Academic and Technical. Industry Panels and Workshops included "20/20: Visual Storytelling to Examine Bias," "An Intersectional Approach to Improving Hiring Outcomes" and "So You Want to Work at a Startup: Breaking into Tech". The Academic Panels and Workshops included "Cracking the Internship Code: A Crash Course on How to Get an Internship in Tech", "Creating a Community for Black College Women in Tech" and "May the High

Performance Computing Force be With You". Technical Panels and Workshops included "Best practices for validating machine learning in medicine", and "Preparing for the People: Tips for Creating Inclusive User Studies and Security - Graphical Passwords."

The Tapia Conference Career Fair featured over 85 industry, academic institutions, government laboratories and nonprofit sponsors.

Howard University was the recipient of the fourth annual CMD-IT University Award for Retention of Minorities and Students with Disabilities in Computer Science. The University Award recognizes US institutions that have demonstrated a commitment and shown results for the retention of



## Expanding the Pipeline - Tapia *(continued)*

students from underrepresented groups in undergraduate Computer Science programs over the last five years. The CMD-IT University Award decision was based on Howard University's impressive quantitative reported results, which reflected high retention and graduation rates, and qualitative reporting on their various retention programs. Dr. Gloria Washington, Assistant Professor, Howard University and Dr. Legand Burge, Professor and Executive Director of the Howard West Initiative, and former Chairman of the Department of Computer Science, Howard University, presented the following programs as directly impacting retention during their session on Effective Student Retention Strategies:

- Google in Residence (GIR) is a program that embeds Google engineers as faculty at Howard and about ten Historically Black Colleges and Universities (HBCUs) across the United States. The GIR program takes a software engineer working in Silicon Valley and gives them the opportunity to expose the students to projects, problems, and technology that Silicon Valley has solved or is currently solving in our introductory Computing (CS0) course. The GIR program has been going strong for more than six years and has been a springboard to students studying for and preparing for Silicon Valley internships.
- The Howard West initiative is a program that immerses computer science undergraduate students in Silicon Valley culture, projects, and problems. The semester long program was first piloted in the Summer of 2017 at Google's Silicon

Valley headquarters. Students were co-taught by a Howard professor and a Google engineer in classes such as Software Engineering, Mobile Applications Development, and Machine Learning. The Howard CS Program is in talks with other tech companies to expand the initiative for students to be exposed to companies that now have larger east-coast footprints.

- The Howard University CS Bootcamp Program is a peer-tutoring initiative that is designed to help Computer Science undergraduates in the Introduction to Computing, Introduction to Computer Science and the Introductory to Data Structures courses. Twice a week, underclassmen attend Bootcamp sessions run by juniors and seniors to gain extra practice and assistance with concepts covered in each of the three classes.
- BIT (Bison Innovation and Talent) Awards were created to recognize students that contribute to the program outside of the classroom. Award winners receive recognition through posters and newsletter articles.

The session was followed with Five Year Journey of the CMD-IT University Award for Retention of Minorities and Students with Disabilities in Computer Science where representatives of the three previous University Award winners Georgia Institute of Technology, University of North Carolina Charlotte and University of Texas El Paso presented updates on their retention strategies and programs.

The Tapia Conference concluded with its annual Awards Ceremony. Awards were distributed for the Best Doctoral

Consortium Presentation and the graduate and undergraduate Tapia and ACM Student Research Competition Poster award winners. Over 80 students participated in the Poster sessions. Students created videos of their poster presentations and answered judges' and attendees' questions via chat. The Awards Ceremony concluded with the presentation of the Richard A. Tapia Achievement Award for Scientific Scholarship, Civic Science and Diversifying Computing.

The Tapia Award recipient was Dr. Jeanine Cook, a Principal Member of Technical



Dr. Jeanine Cook



## Expanding the Pipeline - Tapia (*continued*)

Staff at Sandia National Laboratories in Albuquerque, New Mexico, in the Scalable Architectures department at the Computer Science Research Institute. The Richard A. Tapia Award is given annually to an individual who is a distinguished computational or computer scientist or computer engineer and who is making significant contributions to civic areas such as teaching, mentoring, advising, and building and serving communities. The individual is also one who demonstrates extraordinary leadership in increasing the participation of groups who are

underrepresented in the sciences. She is a leading researcher in the fields of High-Performance Computing, performance characterization and modeling, hardware accelerator technologies, and large-scale system monitoring and data analytics. In addition, she has focused on diversity issues in computer science. She also mentored numerous PhD and Masters Students while a professor. Jeanine Cook's advice to students in her acceptance speech was "Let adversity be your friend. Look at it as a challenge not as something that will beat you down.

Adversity does build character if you let it. And life is not going to be easy. There are going to be a lot of challenges and bad things. A lot of good things, too. But I think the key to life is perseverance. And really make those good choices during those hard times."

The conference ended with the words of Dr. Richard A. Tapia, Director of the Center for Excellence and Equity in Education, Rice University, who encouraged all of the students to embrace and defend science.

### About the Author

Jerri Barrett is the Director of Social Media for the Center for Minorities and People with Disabilities in IT (CMD-IT). Prior to CMD-IT Jerri was the VP of Outreach for the SENS Research Foundation, and VP of Marketing for the Anita Borg Institute. Before that Jerri spent 20 years in high tech and telecommunications marketing for companies such as Rochester Telephone, Glenayre Technologies, Nortel Networks and HighWired. Jerri earned a Bachelor's degree from Mount Holyoke College and an MBA from the William E. Simon School of Business Administration.

# Undergraduate and Graduate Students Indicate the Computing Fields in Which They Intend to Earn Their Highest Degree

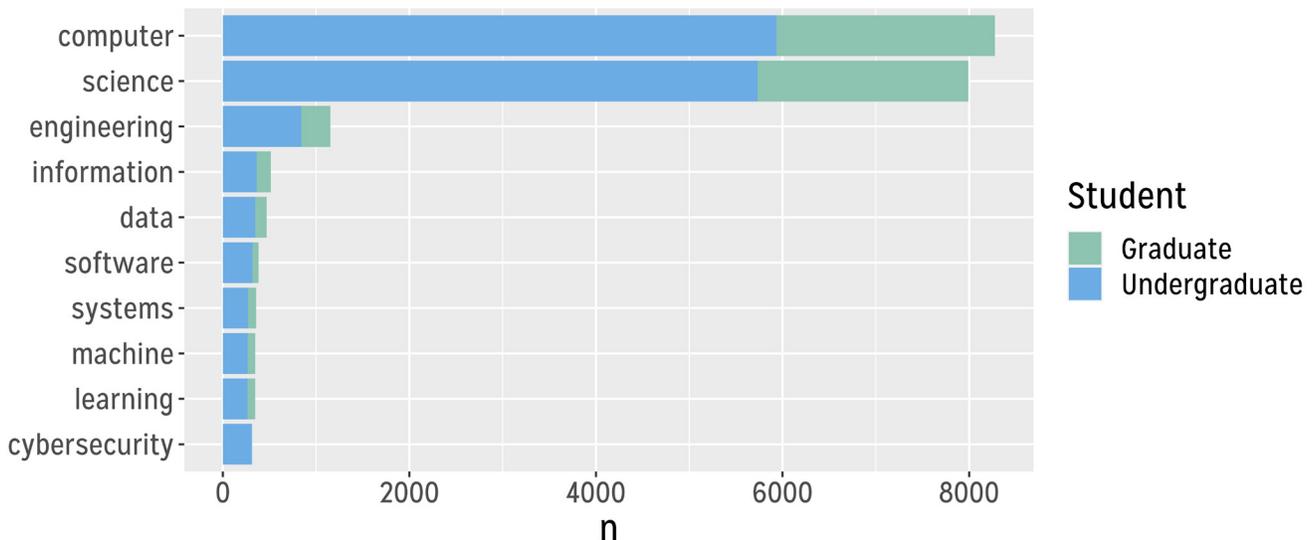


CERP

Computing Research Association  
Evaluation

By Evelyn Yarzebinski, CERP Research Associate

## Intended highest degree in a computing field: Top 10 words used by Undergraduates and Graduates



Source: Data Buddies Survey (DBS) 2019, Center for Evaluating the Research Pipeline, Computing Research Association

The field of computing covers many sub-fields and specialty areas. Which of those sub-fields and specialty areas are those in which students most commonly intend to earn their highest degree? CERP analyzed the results of the Fall 2019 Data Buddies Survey (DBS) for undergraduate and graduate students to understand the computing fields in which these students were most interested.

Students were asked “Do you intend to earn your highest degree in a computing field?” and were invited to further elaborate the field in which they were interested in earning that degree. A total of 8,100 undergraduate students and 3,038 graduate students indicated their interest in earning their highest degree in a computing field, and additionally provided a free-response answer. Due to different ways of stylizing a field’s name (“computer science & engineering” vs “computer science and engineering”) and students providing multiple fields of interest (e.g. “computer science/cybersecurity”), CERP instead broke down each of these responses into their respective unigrams (N = 23,327; 383 unique unigrams) to analyze the most commonly used words in students’ responses. The resulting graph is filtered for the 10 most common words.

While these results are perhaps unsurprising, they are important to demonstrate current trends in the field. Future analyses will compare students’ answers from past years to detect whether there has been change over time.

### Notes:

The survey data analyzed for this infographic were collected by Center for Evaluating the Research Pipeline via The Data Buddies Project in 2019. CERP analyzed the free-text responses by splitting free-response answers into unigrams and visualizing the 10 most commonly used words.

This analysis is brought to you by the CRA’s Center for Evaluating the Research Pipeline (CERP). CERP provides social science research and comparative evaluation for the computing community. Subscribe to the CERP newsletter [here](#). Volunteer for Data Buddies by signing-up [here](#).

This material is based upon work supported by the National Science Foundation under grant numbers CNS-1246649, DUE-1431112, and/or DUE-1821136. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

# CERP Announces Webinar for Data Buddies Survey



**CERP**

Computing Research Association  
Evaluation

*By CERP Staff*

The CRA [Center for Evaluating the Research Pipeline \(CERP\)](#) recently published a webinar featuring the [Data Buddies Survey \(DBS\)](#). This webinar details some of the background of the Data Buddies Survey, tips for good response rates, benefits for participating departments, and requirements for participating departments. This webinar is designed for a broad audience, including prospective DBS participants. You can view the webinar [by clicking here](#).

If you would like to volunteer your department to join DBS, you can [sign up here](#).

Email the CERP team with questions or comments at [cerp@cra.org](mailto:cerp@cra.org).



# Architecture Innovation Accelerates Artificial Intelligence

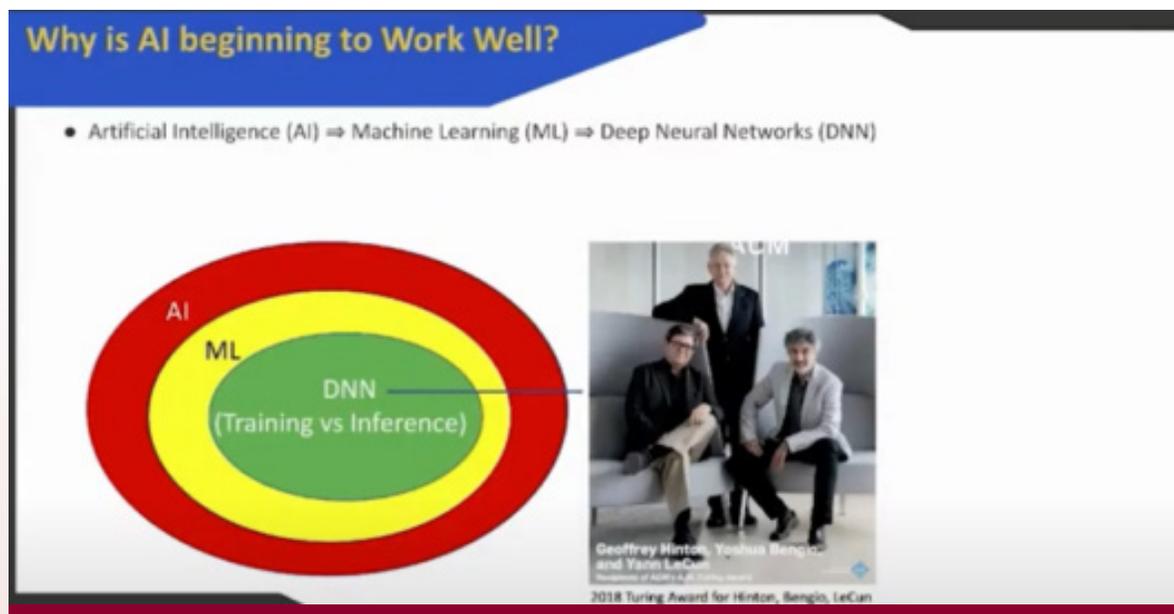
By Khari Douglas, CCC Senior Program Associate



David A. Patterson

As part of the first day of the Virtual **Heidelberg Laureate Forum (HLF)** **David A. Patterson**, who received the 2017 **ACM A.M Turing Award** “for pioneering a systematic, quantitative approach to the design and evaluation of computer architectures with enduring impact on the microprocessor industry,” shared a presentation titled *Architecture Innovation Accelerates Artificial Intelligence*.

To begin, Patterson gave a brief overview of the history of AI: it started with top-down approaches where a programmer would attempt to describe all the rules with the proper logic for the machine, but other researchers argued that was impossible and instead advocated for a bottom up approach where you feed the machine data and it learns for itself, i.e. machine learning, which has proven very successful. One type of machine learning is **deep neural networks (DNN)**, which has generated a lot of the recent advances in AI.



David Patterson on why AI is beginning to work well

The algorithms that power DNN aren't new, so what has changed to make these systems viable currently? These days we have access to a lot more data and much faster machines, allowing DNNs to train themselves efficiently. Unfortunately, Moore's Law – the observation, made by Intel co-founder Gordon Moore in the 1970s, that if \$1 gets you 1,000 transistors today then in approximately two years \$1 will get you 2,000 transistors – has slowed down. The number of transistors used to track one to one with computer speed so that every two years or so you could double the speed of the computer, but that relationship no longer holds. Patterson said we are currently off by a factor of 15 between predicted transistors per chip and reality. Thus we will need to come up with new ways to improve computing speed and power machine learning systems.



# AI (continued)

### How Do We Keep ML Working Well?

- Machine Learning (ML) is Driving AI
- To advance ML ⇒ need more data and faster machines
- Lots more data from the Cloud and IOT
- What about faster machines?
- Moore's Law slowdown
- ⇒ General purpose machine improvement slowdown

2x/1.5 years in 2000 to 2x/20 years in 2020

Hennessy, J.L. and Patterson, D.A., Feb 2019. A new golden age for computer architecture. Communications of the ACM

David Patterson on the end of Moore's Law and how we keep ML working well

The current approach to overcome these limitations are Domain Specific Architectures (DSA), which do a few things well but are not good at arbitrary programs. Patterson said that "five decades of experience in designing general purpose architectures may not apply." If you are a company in this space what do you do?

Patterson shared an example from recent history: In 2013 Google calculated that if 100 million users started doing DNN three minutes per day on CPUs they would need to double the size of their data centers, so they started an emergency project whose goal was to make a factor of ten improvement over existing CPUs and GPUs. Within 15 months they went from ideas to working hardware and software. The TPUv1 that Google designed had around a 80X performance per Watt of the 2015 Intel CPU and a 30X performance per Watt of the NVIDIA GPU because they were using 8-bit integer data rather than 32-bit floating point data and they dropped general purpose CPU/GPU features, which saves area and energy.

TPUv1 was used for ML inference, next Google created the TPUv2 that was designed to do ML training, which requires more computation, more memory, and bigger data. Google decided to build into the TPUv2 chips four Inter-Core Interconnect (ICI) links that

### Performance/Watt TPUv1 vs CPU & GPU (2015)

- ≈80X performance/Watt of 2015 Intel CPU
- ≈30X performance/Watt of 2015 NVIDIA GPU
- 10X difference in computer products are rare

Category	Performance/Watt vs. CPU or GPU
GPU/CPU	2.9
TPU/CPU	83
TPU/GPU	29

Comparison between TPUv1 and CPU and GPU (2015)



## AI (continued)

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each runs at 500 gigabits per second. Thus the links are approximately five times faster than those in a classic data center network at only one tenth of the costs. Eventually they created TPUv3 which further improved the system performance.

This is all to say that making domain specific architectures works and if we want to continue to improve ML systems we will need to continue developing new and improved DSAs. The recently released **GPT-3** (Generative Pre-trained Transformer) neural network model has gained a lot of buzz for being able to successfully mimic human language. The big breakthrough, as Patterson put it, is simply being 100 times bigger than GPT-2. GPT-2 had only 1.5 billion parameters in comparison to GPT-3's 175 billion. In machine learning the size of your data set and speed of your computer matter; thus computer architects will play a vital role in the future of AI.

Read about Patterson's 2018 presentation at HLF [here](#) and check out Patterson's blog post on an effort to increase industrial product papers in a flagship conference of the discipline, further enhancing academia-industry synergies [here](#).

**Watch the full recording of David Patterson's talk on Youtube [here](#).**

# A General-Audience Talk: How Computing May Change Our World



CCC

Computing Community Consortium  
Catalyst



Mark D. Hill

## *By Mark D. Hill*

While the **Computing Research Association's Computing Community Consortium (CCC)** works to catalyze the computing community for the public good, we have rarely prepared talks suitable for the non-computer-scientist public. Fortunately, **CCC Chair Emeritus Mark D. Hill** of the **University of Wisconsin-Madison** recently prepared a well-received general-audience talk for **Participatory Learning And Teaching Organization (PLATO)**, a senior organization that arranges informative lectures, classes, and field trips, all virtual now.

Prof. Hill's one-hour talk has the immodest title "How Computing May Change Our World" (**YouTube Video & Slide PDF**). It discusses that, while computing has already changed how we communicate, work, and play, more big impacts are afoot. Prof. Hill gives insight into and discusses the impacts of three important examples on the horizon:

- (a) why artificial intelligence will free humans from more repetitive tasks,
- (b) how quantum computing will eventually enhance discovery, and
- (c) how computing and very human issues like fairness will increasingly interact.

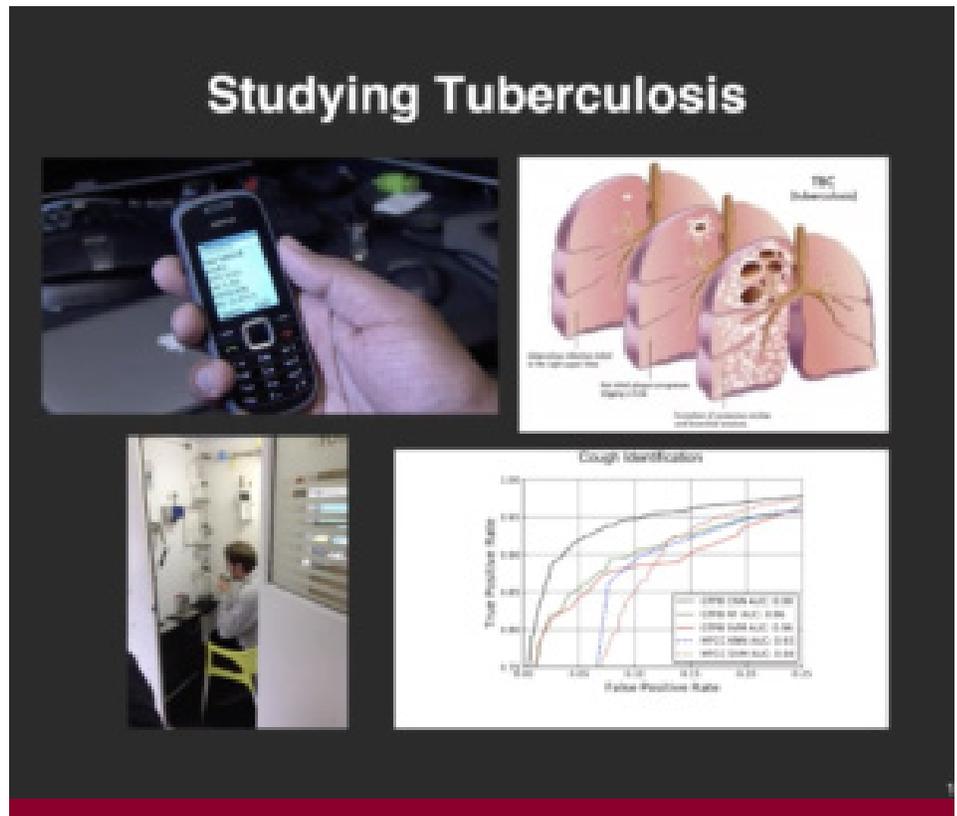
# What Role Can Computing Play in Battling the COVID-19 Pandemic?

*Khari Douglas, CCC Senior Program Associate*

How can computing technology impact global health, particularly with regards to the COVID-19 pandemic? Shwetak Patel, 2018 **ACM Prize in Computing** winner and **Computing Community Consortium** (CCC) council member, addressed this question on the second day of the Virtual **Heidelberg Laureate Forum** (HLF) 2020. Patel, an entrepreneur and **professor of computer science** at the University of Washington, won the 2018 Prize for “contributions to creative and practical sensing systems for sustainability and health.”

During his presentation, Patel highlighted a few of the use cases of computing technology on healthcare: for instance, AI has improved screening and diagnostic capabilities by reading X-rays and radiology scans and the ubiquity of mobile phones makes them a great option for health sensing and point of care diagnostics.

Patel and his colleagues have developed a number of innovative health applications that are designed to be used with standard mobile phones. One such example is **Bilicam**, an app that can monitor jaundice in babies using a smartphone camera. Another is **Osteoapp**, which emits a sound from a smartphone that causes a vibration in the bones. The app can then tell if the resulting vibration frequency indicates a healthy or unhealthy bone structure.



*Shwetak Patel discusses cough monitoring for tuberculosis*

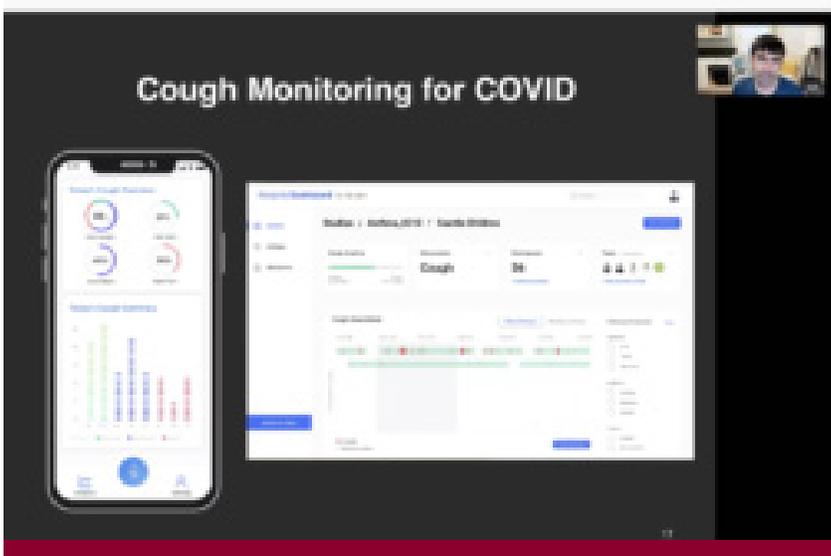
Patel has also worked on an application called CoughSense that monitors a user’s cough through a mobile phone microphone. This app has been used to monitor the recovery of tuberculosis patients and make sure they are not developing secondary infections. Patel said his grad students have begun applying this cough monitoring technology to COVID patients as well. Read more about his work on mobile cough monitoring systems [here](#).

Other technological solutions like contact tracing could be valuable in the battle against COVID. In order to know how the virus is spreading we will need to process a large volume of public

health data, deploy and interpret rapid testing, and track and follow-up with individuals. Patel mentioned the **Institute for Health Metrics and Evaluation** (IHME), an independent global health research center at the University of Washington, for their work capturing global health data to help improve policy and decision-making. IHME has a wealth of data and projections related to the COVID pandemic available on [their website](#).

While this kind of data collection can prove valuable it is not without downsides. During the Q&A, a young researcher asked Patel about the ethical challenges of the large scale collection of healthcare data. Patel responded

## Computing and COVID-19 (continued)



Shwetak Patel discusses cough monitoring for COVID



that security and privacy are paramount and that researchers need to think about what data they are collecting – sometimes researchers may collect data without a clear plan for the use of that particular data, but Patel argued that we should only collect data that will be valuable for the particular outcome you are trying to achieve. about what we are doing with the data. We can not just collect something and then figure out what to do with it later – we need to know if the data actually does what we think it will. Additionally, researchers should consider whether the value of the data outweighs the privacy concerns. Transparency is also very important. It needs to be clear to the users how the data is being handled and what it will be used for.

Last year I had a chance to interview Shwetak Patel on the **Catalyzing Computing** podcast, the official podcast of the Computing Research Association’s (CRA) CCC. Listen to that episode [here](#) to learn more about how he got started in computer science and his thoughts on entrepreneurship, building a team, and the future of smart health systems.

Watch the full presentation from Shwetak Patel at the Virtual HLF 2020 [here](#). For more information on how researchers are using computing to adapt and help in these times see a [series of posts from the CCC here](#). We hope you find something that may help you, either now or in the future.

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## Baidu Research Cognitive Computing Lab

### Postdoctoral Researchers in Cognitive Computing

Baidu Research Cognitive Computing Lab (CCL) is looking for outstanding researchers with strong background in machine learning, statistics, applied mathematics, systems, databases, NLP, computer vision, security, theoretical computer science, etc. Our mission is to develop next generation cognitive computing technologies for better connecting billions of users to services. Our postdoctoral researchers are expected to focus on basic research in broad AI-related fields. This would be an excellent opportunity for fresh PhD graduates in CS, Statistics, EE, Amath, etc., to spend 1 – 3 years in an industrial research environment to prepare for their long-term research careers either in academia or research labs.

#### Qualifications:

1. PhD in Computer Science, Statistics, Electrical Engineering, Mathematics, Operation Research, or related fields.
2. Excellent publication record in major CS conferences or premier Stat/EE/ SIAM journals. Examples are CVPR, FOCS, KDD, ACL, WWW, ICML, SIGMOD, JMLR, PAMI, IEEE Info. Theory, major statistics/ mathematics journals, SIAM J. Computing, SIAM J. Optimization, etc.
3. Strong analytical and problem-solving skills.
4. Team player with good communication skills.

Locations: Bellevue WA, Sunnyvale CA, or Beijing China. Please send CV to [ccl-job@baidu.com](mailto:ccl-job@baidu.com)

## Boston College

### Non Tenure Track Position in Computer Science

The Computer Science Department of Boston College seeks to fill one or possibly more non-tenure track teaching positions, as well as shorter-term visiting teaching positions. **One of these positions has a January, 2021 start date.** All applicants should be committed to excellence in undergraduate education, and be able to teach a broad variety of undergraduate computer science courses. We are especially interested in candidates who are able to teach courses in systems and networks. Faculty in longer-term positions will also participate in the development of new courses that reflect the evolving landscape of the discipline.

Minimum requirements for the title of Assistant Professor of the Practice, and for the title of Visiting Assistant Professor, include a Ph.D. in Computer Science or closely related discipline.

Candidates without a Ph.D. would be eligible for the title of Lecturer, or Visiting Lecturer.

We will begin reviewing applications as they are received and will continue considering applications until the positions are filled. Applicants should submit a cover letter, CV, and a separate teaching statement and arrange for three confidential letters of recommendation that comment on their teaching performance to

be uploaded directly to Interfolio. To apply go to: <http://apply.interfolio.com/78108>

Boston College conducts background checks as part of the hiring process. Information about the University and our department is available at [bc.edu](http://bc.edu) and [cs.bc.edu](http://cs.bc.edu).

Boston College is a Jesuit, Catholic university that strives to integrate research excellence with a foundational commitment to formative liberal arts education. We encourage applications from candidates who are committed to fostering a diverse and inclusive academic community. Boston College is an Affirmative Action/ Equal Opportunity Employer and does not discriminate on the basis of any legally protected category including disability and protected veteran status. To learn more about how BC supports diversity and inclusion throughout the university, please visit the Office for Institutional Diversity at <http://www.bc.edu/offices/diversity>.

## City University of Hong Kong

### Worldwide Search for Talent

City University of Hong Kong is a dynamic, fast-growing university that is pursuing excellence in research and professional education. As a publicly-funded institution, the University is committed to nurturing and developing students' talents and creating applicable knowledge to support social and economic advancement.

### Professor/Associate Professor/ Assistant Professor

Department of Computer Science  
[Ref. A/430/09]

The Department of Computer Science has internationally known research groups in a number of areas, including bioinformatics, cloud computing, evolutionary computation, information security, machine learning and data science, mobile computing, multimedia computing and graphics, and software engineering. The Department is ranked the 11th best Computer Science Department globally by the US News & World Report (2019).

For further details, please visit <http://www.cityu.edu.hk/hro/en/job/current/academic.asp?ref-uac-a430>.

City University of Hong Kong is an equal opportunity employer and we are committed to the principle of diversity. Personal data provided by applicants will be used for recruitment and other employment-related purposes.

## Carnegie Mellon University

*Postdoc position: image analysis*

See [xulabs.github.io/position](http://xulabs.github.io/position)

## Cornell University

*Computer Science*

*Tenure-Track and Tenured Faculty Search*

### 2020-2021 Cornell Computer Science Tenure-Track and Tenured Faculty Search, Ithaca Campus

The Cornell University Department of Computer Science (CS) in the College of Computing and Information Science (CIS) has multiple faculty positions available at

its Ithaca campus (tenured, tenure-track or lecturer). CS is ranked among the top computer science departments in the country (<http://www.cs.cornell.edu/>). Ithaca, NY is in the heart of the Finger Lakes region. Both Cornell and Ithaca offer a vibrant cultural life and a wide range of sporting and outdoor activities with the pleasures of both city and country close at hand.

Applications from all areas of computer science and related fields are welcome.

Faculty hired in these positions will be members of the Department of Computer Science, which spans the Ithaca and New York City campuses, but their teaching and research will be based in Ithaca. A separate application is needed to be considered for a Computer Science position at the New York City campus; please visit the website <https://tech.cornell.edu/jobs/> for further information about the New York City application process.

Tenured and tenure-track faculty must hold the equivalent of a Ph.D. Applicants must have demonstrated an ability to conduct outstanding research. Successful candidates are expected to pursue an active research program, to teach graduate and undergraduate courses, and to supervise graduate students.

To ensure full consideration, applications should be received by December 1, 2020, but will be accepted until all positions are filled.

Fostering an inclusive environment is a core value of the Computer Science Department and Cornell as a whole. In line with Cornell's historical commitment to educating " ... any person ... in any study...", we seek candidates who will create a climate that helps attract

and is inclusive of all students, including students from historically underrepresented groups, and students who have overcome personal challenges. Applicants are asked to submit a Statement of Contribution to Diversity, Equity and Inclusion to describe their potential contributions to diversity and inclusion. See <http://facultydevelopment.cornell.edu/information-for-faculty-candidates/> for the university's commitment to diversity, inclusion and equity, including suggestions for what we are looking for in such statements, and see <https://cis.cornell.edu/diversity> for some CIS activities in this area.

Applicants should submit a curriculum vitae, a diversity statement, and brief statements of research and teaching interests, identify one or two top publications to which they have made significant contributions and arrange to have at least three reference letters submitted at: <https://academicjobsonline.org/ajol/jobs/16919>.

Inquiries about your application may be directed to [freccruit@cs.cornell.edu](mailto:freccruit@cs.cornell.edu)

We strongly encourage women and underrepresented minorities to apply. Cornell University seeks to meet the needs of dual career couples, has a Dual Career program, and is a member of the Upstate New York Higher Education Recruitment Consortium to assist with dual career searches.

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Suitable research fields include, but are not limited to:

*Computational social science*

*Network science*

*Visualization*

*Technical approaches to HCI*

“...any person... any study” (Ezra Cornell, 1868)

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candidate should have a history of collaborative work across disciplines, but still show evidence of independence and initiative. They must have their Ph.D. in any discipline or expected by September 2021, DMA or MFA. The Fellowships are two year appointments.

Neukom Fellows will be mentored by faculty in two departments at Dartmouth College, take up residence in one department, and will teach one seminar course each year on a subject of their interest. Beyond that there are no additional duties. Neukom Fellow stipends are \$60,000 for 2020-2021. Additional funds are available for equipment, travel, and research materials.

Applications must be submitted here: <https://dartmouth.communityforce.com/Login.aspx>

## Hampden-Sydney College

*Assistant Professor of Computer Science*

The Department of Mathematics and Computer Science at Hampden-Sydney College invites applications for a tenure-track Assistant Professor of Computer Science position beginning August 2021.

For more details and to apply, see: <https://apply.interfolio.com/77792>.

## Harvard Business School

*Technology and Operations*

*Management Unit*

*Tenure Track Assistant Professor Position*

## Dartmouth College

*Neukom Fellows:  
Call for Applications*

The Neukom Institute for Computational Science at Dartmouth College is pleased to announce the Neukom Postdoctoral Fellows competition for positions starting September 1, 2021.

Neukom Fellows are interdisciplinary positions for recent Ph.D.s, DMAs, or MFAs whose research interests or practice cuts across traditional disciplinary boundaries, and has some computational component, whether it be a framing concept for intellectual exploration or an explicit part of the work that is pursued. The successful

*Reference Key: TOM Unit*

*Deadline: November 16, 2020*

The Technology and Operations Management Unit of Harvard Business School seeks candidates for a full-time tenure-track Assistant Professor position starting July 2021.

Applicants should have research interests in one or more of the following: operations management in service, retailing, and manufacturing contexts; economics and management of innovation; new product development; information technology and digital transformation; AI and applied data science in business contexts; supply chain management; or related fields. Applicants should have recently graduated with a PhD (forthcoming or in the last 3 years) with strong, demonstrated potential and interest to conduct research at the forefront of their field. Applicants should submit a current curriculum vitae, job market paper, research statement, teaching statement and copies of other publications and working papers, and three letters of recommendation.

To be considered, applicants should submit a complete job packet by November 16, 2020 and should include a current curriculum vitae, job market paper, research statement, teaching statement and copies of other publications and working papers, and three letters of recommendation. All application materials should be uploaded by the closing date at <https://www.hbs.edu/faculty/positions/Pages/default.aspx>.

Harvard is an Affirmative Action/Equal Opportunity Employer. Applications

from women and minority candidates are strongly encouraged. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

## Hong Kong University of Science and Technology

*Job Title: Founding Faculty*

*Department: Information Hub, HKUST (GZ)*

*Job ID: 5487*

### Job Posting Details

The Hong Kong University of Science and Technology (HKUST) invites applications for founding faculty positions at Professor, Associate Professor, and Assistant Professor ranks in the **Information Hub** (<https://gz.ust.hk/academics/four-hubs/information-hub>) for its new campus in Guangzhou. The HKUST (GZ) Information Hub focuses on addressing global challenges arising from human interactions with information and technology in an era of digital transformation. The Hub is comprised of four thrust areas: Artificial Intelligence (**AI**), Data Science and Analytics (**DSA**), Internet of Things (**IoT**), and Computational Media and Arts (**CMA**). We are committed to providing a world-class education and conducting cutting-edge research with practical applications, with the purpose of not only advancing regional development but also making a global impact.

Besides a PhD degree and a publication record with international impact, (i) **AI** candidates should have a demonstrated ability to pursue high impact research in AI, either in its algorithmic foundation, or in its translational applications; (ii) **DSA** candidates should have a demonstrated ability to pursue high impact research in data science and analytics. The initial focus areas include, but not limit to, data-driven AI & machine learning, statistical learning and modeling, industrial and business, sector-specific data analytics; (iii) **IoT** candidates should work in one or more of the following areas: IoT infrastructure and devices, IoT systems and communications, IoT intelligence and automation, IoT applications, IoT security and privacy-enhancing technologies; and (iv) **CMA** candidates with the engineering background should have demonstrated ability to pursue high impact research in virtual/augmented/mixed reality, computer graphics, data visualization, human-computer interaction, etc. Candidates with the art background shall have MFA plus an active Digital Arts exhibition history with a sustained creative research practice in areas of above-mentioned specialization.

**About HKUST (GZ)** (<https://gz.ust.hk/>) HKUST(GZ) provides superb research facilities, attracting top international faculty and students to conduct curiosity-driven and goal-oriented research to address the world's pressing scientific and technological challenges. English is the medium of instruction and administration at HKUST(GZ) campus.

## Remuneration and Conditions of Service

Salary is highly competitive of international standard and will be commensurate with qualifications and experience. Generous research funds, ample laboratory space and excellent research equipment and support will be provided.

All posts are tenure-track Mainland China appointments to be offered by the HKUST Mainland entity in accordance with the local employment laws and regulations. Appointment to Professor rank and some Associate Professor rank will be made on substantive basis while initial appointment to other tenure-track faculty ranks will be made on a fixed-term contract of up to three years. Re-appointment will be subject to performance, mutual agreement and funding availability.

## Application Procedure

Applications should be sent to [gzrecruitINF@ust.hk](mailto:gzrecruitINF@ust.hk) with (i) full CV; (ii) a statement of research, teaching, and service; (iii) up to five most representative publications; (iv) record of teaching performance (if any); (v) names and contact information of three referees; and (vi) **please specify which Thrust you are applying**. Review of applications will continue until all positions are filled.

## Indiana University

*Luddy School of Informatics, Computing, and Engineering*

### *Assistant Professor in Computer Science*

The Luddy School of Informatics, Computing, and Engineering at Indiana University (IU) Bloomington invites applications for a tenure track assistant professor position in Computer Science to begin in Fall 2021. We are particularly interested in candidates with research interests in formal models of computation, algorithms, information theory, and machine learning with connection to quantum computation, quantum simulation, or quantum information science. The successful candidate will also be a Quantum Computing and Information Science Faculty Fellow supported in part for the first three years by an NSF-funded program that aims to grow academic research capacity in the computing and information science fields to support advances in quantum computing and/or communication over the long term. For additional information about the NSF award please visit:

[https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1955027&HistoricalAwards=false](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1955027&HistoricalAwards=false)

The position allows the faculty member to collaborate actively with colleagues from a variety of outside disciplines including the departments of physics, chemistry, mathematics and intelligent systems engineering, under the umbrella of the Indiana University funded

“quantum science and engineering center” (IU-QSEc).

We seek candidates prepared to contribute to our commitment to diversity and inclusion in higher education, especially those with experience in teaching or working with diverse student populations. Duties will include research, teaching multi-level courses both online and in person, participating in course design and assessment, and service to the School. Applicants should have a demonstrable potential for excellence in research and teaching and a PhD in Computer Science or a related field expected before August 2021.

Candidates should review application requirements, learn more about the Luddy School and apply online at: <https://indiana.peopleadmin.com/postings/9841>

For full consideration submit online application by December 1, 2020. Applications will be considered until the positions are filled. Questions may be sent to [sabry@indiana.edu](mailto:sabry@indiana.edu)

Indiana University is an equal employment and affirmative action employer and a provider of ADA services. All qualified applicants will receive consideration for employment without regard to age, ethnicity, color, race, religion, sex, sexual orientation, gender identity or expression, genetic information, marital status, national origin, disability status or protected veteran status.

## Jacobs Technion-Cornell Institute at Cornell Tech

*Professor of Practice in Data Science, Machine Learning*

The Jacobs Technion-Cornell Institute at Cornell Tech is looking to fill a Professor of Practice position in data science and machine learning. We seek an experienced professional with a record of success in the application of machine learning or data-related techniques and principles (e.g., statistics, knowledge discovery, visualization, etc.) in an industry or government setting, with an interest and comfort in teaching master's degree-level students. The Professor of Practice is expected to teach at least one master's course per semester, including an Urban Data course in Spring of 2021, to mentor student projects, and to engage with external non-academic partners. The candidate may also pursue innovation and experimentation in relevant areas.

This is a 3-year renewable non-tenure track position to be located on our campus on Roosevelt Island in New York City. A part-time appointment may be possible.

For more information, including necessary qualifications, and to apply, please see <https://cornelltech.io/prof-of-practice-data-science-machine-learning>

## Johns Hopkins University

*Lecturer/Sr. Lecturer in Computer Science*

The Department of Computer Science at Johns Hopkins University seeks

applicants for a full-time teaching position. This is a career-oriented, renewable appointment that is responsible for the development and delivery of undergraduate and graduate courses, depending on the candidate's background. These positions carry a 3-course load per semester, usually with only 2 different preps. Teaching faculty are also encouraged to engage in departmental and university service and may have advising responsibilities. Extensive grading support is given to all instructors. The university has instituted a non-tenure track career path for full-time teaching faculty culminating in the rank of Teaching Professor. Johns Hopkins is a private university known for its commitment to academic excellence and research. The Computer Science department is one of nine academic departments in the Whiting School of Engineering, on the beautiful Homewood Campus. We are located in Baltimore, MD in close proximity to Washington, DC, and Philadelphia, PA. See the department webpage at <https://cs.jhu.edu> for additional information about the department, including undergraduate and graduate programs and current course descriptions. Applicants for the position should have a Ph.D. in Computer Science or a closely related field. Demonstrated excellence in and commitment to teaching, and excellent communication skills are expected of all applicants.

Applications may be submitted online at <http://apply.interfolio.com/78726>. Questions may be directed to [lecsearch2020@cs.jhu.edu](mailto:lecsearch2020@cs.jhu.edu).

For full consideration, applications should be submitted by December 1, 2020. Applications will be accepted until the position is filled.

The Department is conducting a broad and inclusive search and is committed to identifying candidates who through their teaching and service will contribute to the diversity and excellence of the academic community. The Johns Hopkins University is committed to active recruitment of a diverse faculty and student body. The University is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities and encourages applications from these and other protected group members. Consistent with the University's goals of achieving excellence in all areas, we will assess the comprehensive qualifications of each applicant.

## Lawrence Berkeley National Laboratory

*C++ Programmer/Software Engineer*

Lawrence Berkeley National Laboratory has an opening for a C++ Programmer/Software Engineer in the Computational Research Division.

Please apply online at <http://50.73.55.13/counter.php?id=185207>

## Lawrence University of Wisconsin

### *Tenure-Track Assistant Professor of Computer Science*

Lawrence University invites applications for a full-time tenure track position as Assistant Professor of Computer Science to begin September 1, 2021. Appointment at the associate level may be considered commensurate with experience. A PhD in Computer Science or closely related field is required by job start date. The Department of Mathematics and Computer Science seeks an excellent teacher who is passionate about working with undergraduates in a liberal arts setting while actively engaging in high-quality research. Candidates should be enthusiastic to teach broadly, including introductory and core courses (programming, algorithms, data structures) as well as advanced offerings in their particular areas of interest and expertise. Teaching load is two courses per term for three ten-week terms a year. Computer scientists from all research areas are encouraged to apply. Lawrence offers majors in Computer Science, Mathematics, and minors in Computer Science, Mathematics, and, most recently, a minor in Statistics and Data Science.

As a selective undergraduate liberal arts college and conservatory of music located in Appleton, Wisconsin, Lawrence's diverse student body comprises 1500 undergraduates from 47 states and D.C. and more than 45 countries. Recent computer science graduates are employed at Airbnb,

Apple, Amazon, Facebook, Google, LinkedIn, Microsoft, Nintendo, Pixar, Epic, Smart Things, and Workday. Others have attended graduate programs at Wisconsin, Minnesota, Georgia Tech, North Carolina State, RPI, USC, RIT, and Michigan. Appleton has consistently been listed among the best places to live in the U.S., with Lawrence routinely meriting similar national distinction. Candidates are encouraged to read more at Colleges That Change Lives, The 2021 Princeton Review's Best 386 Colleges, and at [www.lawrence.edu](http://www.lawrence.edu).

Evaluation of applications will begin on October 15th and continue until the position is filled. For complete details, please visit <http://lawrence.peopleadmin.com>.

## Marquette University

### *Assistant Professor in Computer Science (tenure track) Fall 2021*

The Department of Computer Science of Marquette University invites applications for an Assistant Professor in Computer Science (tenure track) to begin in August 2021. We are particularly interested in candidates with expertise in bioinformatics, biomedical and health informatics, and related computational fields. Candidates with research in other areas will be considered and are encouraged to apply.

Preference will be given to applicants whose research record demonstrates the potential for establishing an externally

funded research program, and who can contribute to the Department's strategic goals. The Department offers three undergraduate majors, a traditional Computer Science program, Bioinformatics, and a Data Science program, as well as a professional Masters in Computing and PhD in Computer Science. Candidates should demonstrate the ability to teach at the undergraduate and the graduate levels, and have excellent oral, written, and interpersonal skills.

The Department highly regards and encourages interdisciplinary research in both academia and industry. Marquette University is experiencing significant growth in computer science, data science, and affiliated areas. Marquette has recently partnered with Northwestern Mutual on a \$40 million venture to establish the Northwestern Mutual Data Science Institute. This venture will provide research opportunities for the existing and new faculty members. For more information about the current Department and its programs, see <https://www.marquette.edu/computer-science/>.

Our campus is located in downtown Milwaukee, WI, a racially diverse city with convenient access to many government and private and nonprofit agencies, and ripe with opportunity for community engagement and research. Find out more about the city at <http://choosemilwaukee.com/>. Marquette University, an EOE that values diversity, is a Jesuit, Catholic university with a wide range of undergraduate and graduate

programs. We seek candidates who understand, respect and can contribute to the University's Mission Statement, which can be found at <https://www.marquette.edu/about/mission.php>. Candidates from underrepresented groups are especially encouraged to apply.

Responsibilities include, but are not limited to, establishing an independent research program funded by extramural grants, teaching undergraduate and graduate courses, advising and directing undergraduate and graduate student research, performing service to the Department, College and University as well as the academic and civic and professional communities.

For more information, or to apply for the position, please see the listing on Marquette University's electronic recruitment system:

<https://employment.marquette.edu/postings/13671>

## Massachusetts Institute of Technology

*Assistant Professor*

**The Department of Brain & Cognitive Sciences** (<http://bcs.mit.edu>), in collaboration with **the McGovern Institute for Brain Research, the Picower Institute for Learning and Memory, and the Schwarzman College of Computing** at MIT, is looking to hire a tenure-track faculty member at the assistant professor level or higher. The Department of Brain

and Cognitive Sciences offers supportive mentorship to new faculty, an exceptional environment for scientific inquiry, and a strong commitment to an inclusive, welcoming culture. Applications from underrepresented minorities will be given our highest consideration.

We encourage applications from candidates who aim to understand natural intelligence by building artificially intelligent systems. We seek candidates with a diverse range of computational tools and methods, including (but not limited to) machine learning, computer vision, robotics, probabilistic modeling, dynamical systems, planning, programming languages, and natural language processing. Candidates from computer science, engineering or related backgrounds that seek to develop collaborations with neuroscientists and cognitive scientists are particularly encouraged to apply. This position will have an affiliation with the new MIT Schwarzman College of Computing and the MIT EECS department.

Successful applicants are expected to develop and lead independent, internationally competitive research programs and to share in our commitment to excellence in undergraduate and graduate education by teaching courses and mentoring graduate and undergraduate students. PhD must be completed by start day of employment and some postdoctoral training is preferred.

Please submit application materials – cover letter, CV, statement of

research and teaching interests and representative reprints – online at <https://academicjobsonline.org/ajo/jobs/16758>. In addition, candidates should provide a statement regarding their views on diversity, inclusion, and belonging, including past and current contributions as well as their vision and plans for the future in these areas.

To help direct the application, applicants should select “computational approaches to understanding intelligence” from the drop-down list on the application web page. In addition, please arrange to have three letters of recommendation submitted online. All application materials are due by midnight (EST) on **December 1, 2020**.

*MIT is an equal opportunity, affirmative action employer. All qualified applicants will receive consideration for employment regardless of race, color, religion, sex, sexual orientation, gender identity, national origin, veteran status, or disability. We will take affirmative action to ensure that individuals historically discriminated against by race or gender are represented in our workforce and promoted within our institution.*

## Massachusetts Institute of Technology

*Cambridge, MA*

*Faculty Positions*

The Massachusetts Institute of Technology (MIT) Department of Electrical Engineering and Computer Science (EECS) seeks candidates for

faculty positions starting in July 1, 2021, or on a mutually agreed date thereafter. Appointment will be at the assistant or untenured associate professor level. In special cases, a senior faculty appointment may be possible. Faculty duties include teaching at the undergraduate and graduate levels, research, and supervision of student research. Candidates should hold a Ph.D. in electrical engineering and computer science or a related field by the start of employment. We will consider candidates with research and teaching interests in any area of electrical engineering and computer science.

Candidates must register with the EECS search website at <https://school-of-engineering-facultysearch.mit.edu/eecs/>, and must submit application materials electronically to this website. Applications must include a cover letter, curriculum vitae, 2-3-page statement of research and teaching interests and goals. In addition, candidates should provide a statement regarding their views on diversity, inclusion, and belonging, including past and current contributions as well as their vision and plans for the future in these areas. Each application should include the names and addresses of three or more individuals who will provide letters of recommendation. Letter writers should submit their letters directly to MIT, preferably on the website or by mailing to the address below. Complete applications should be received by December 1, 2020. Applications will be considered complete only when both the applicant

materials and **at least three letters of recommendation are received.**

**It is the responsibility of the candidate to arrange reference letters to be uploaded at <https://school-of-engineering-faculty-search.mit.edu/eecs/> by December 1, 2020.**

Send all materials not submitted on the website to:

Professor Asu Ozdaglar  
Department Head, Electrical Engineering  
and Computer Science  
Massachusetts Institute of Technology  
Room 38-403  
77 Massachusetts Avenue  
Cambridge, MA 02139

M.I.T. is an equal opportunity/affirmative action employer.

## Mississippi State University

### *Faculty Positions in Computer Science and Engineering*

The Department of Computer Science and Engineering (<http://www.cse.msstate.edu>) is seeking one new tenure-track faculty at the rank of Assistant Professor, Associate Professor, or Professor in the area of Cybersecurity. Outstanding candidates would be eligible for an appointment as the Mary Lyn and Niles Moseley Endowed Chair of Cyber Security.

Mississippi State University is a comprehensive land-grant institution with over 22,000 students and 1,300 faculty members. The Department of Computer

Science and Engineering offers a B.S. in Computer Science, Software Engineering, and Computer Engineering. It also offers an M.S. in Computer Science and Cyber Security and Operations, and a Ph.D. in Computer Science. In the last fiscal year, department's research expenditures totaled approximately \$10 million, and the university as a whole is ranked 60th among U.S. institutions in computer science expenditures.

Candidates for this position are expected to hold a Ph.D. in Computer Science or closely related field (ABDs may be considered). Rank will be commensurate with experience and qualifications. Preferred qualifications include teaching and research experience, a substantial record of peer-review publications, and demonstrated ability to secure external funding. However, recent graduates with exceptional academic credentials are encouraged to apply. Preference will be given to individuals with a track record of interdisciplinary research collaboration.

Candidates must apply at: <http://explore.msujobs.msstate.edu/500522> and attach a cover letter, curriculum vitae, names, and contact information for at least three professional references, and a statement (limited to three pages) that describes the research and educational interests. Review of applications has begun and will continue until the position is filled.

MSU is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, ethnicity,



## Faculty Positions in Computer Science

The Department of Computer Science at the National University of Singapore (NUS) invites applications for tenure-track and educator-track positions in all areas of computer science.

The Department is looking for candidates for all levels of tenured and tenure-track positions in any area of computer science. Candidates for Assistant Professor positions on the tenure track should be early in their academic careers and yet demonstrate outstanding research potential, and a strong commitment to teaching.

For Senior Lecturer and Associate Professor on the educator-track, teaching experience or relevant industry experience will be preferred. Besides relevant background and experience, we are also looking for someone with a passion for imparting the latest knowledge in computing to students in our programs

The Department enjoys ample research funding, moderate teaching loads, excellent facilities, and extensive international collaborations. We have a full range of faculty covering all major research areas in computer science and boasts a thriving PhD program that attracts the brightest students from the region and beyond. More information is available <https://www.comp.nus.edu.sg/about/depts/cs/recruitment/faculty/>

NUS is an equal opportunity employer that offers highly competitive salaries, and is situated in Singapore, an English-speaking cosmopolitan city that is a melting pot of many cultures, both the east and the west. Singapore offers high-quality education and healthcare at all levels, as well as very low tax rates.

### Application Details:

- Submit the following documents (in a single PDF) online via: <https://faces.comp.nus.edu.sg>
  - A cover letter that indicates the position applied for and the main research interests
  - Curriculum Vitae
  - A teaching statement
  - A research statement (optional but encouraged for educator-track)
- Provide the contact information of 3 referees when submitting your online application, or, arrange for at least 3 references to be sent directly to [csrec@comp.nus.edu.sg](mailto:csrec@comp.nus.edu.sg)
- To ensure maximal consideration, please submit your application by 18 December 2020.
- If you have further enquiries, please contact the Search Committee Chair, Joxan Jaffar, at [csrec@comp.nus.edu.sg](mailto:csrec@comp.nus.edu.sg)

sex (including pregnancy and gender identity), national origin, disability status, age, sexual orientation, genetic information, protected veteran status, or any other characteristic protected by law. We always welcome nominations and applications from women, members of any minority group, and others who share our passion for building a diverse community that reflects the diversity in our student population.

## NEC Laboratories America, Inc.

*Researcher - Data Science/Networking*

**NEC Laboratories America, Inc.** (<http://www.nec-labs.com/>) conducts research in support of NEC's US and global business. Our lab has a broad research program that covers many areas and maintains a balance of fundamental and applied research.

The Data Science and System Security Department aims to build novel big data solutions and service platforms that simplify the management of complex systems, from networks to cyber-physical systems, and to develop new information technology that supports innovative applications, from big data analytics to the Internet of Things. Our research is both experimental and theoretical, covering many domains in data science and artificial intelligence, such as: time series mining, graph mining, text mining, anomaly detection, signal processing, and streaming processing. The goal of our research is to understand the dynamics of big data from complex systems and build innovative solutions to help end users manage these systems. We built several analytic engines and system solutions to process and analyze big data and support various applications in detection, prediction and optimization. Our research leads to both award-winning NEC products and publications in top conferences.

Our group is looking for researchers to work at the intersection of networking and machine learning. The ideal candidate must have a PhD in CS/CE and a strong publication record in at least one of the following areas:

- Data mining and machine learning
- Network management
- 5G networking and IoT
- Network measurements and analysis

**NEC Labs** is located in Princeton, NJ, home of Princeton University and one of

New Jersey's most beautiful and idyllic towns. The area offers many exciting cultural, entertainment and outdoor activities. The office is minutes away from Princeton University and an hour from New York, Philadelphia, and the Atlantic Ocean. For more information about NEC Labs, access <http://www.nec-labs.com/> and submit your CV and research statement through our career center at [https://www.appone.com/MainInfoReq.asp?R\\_ID=3123535](https://www.appone.com/MainInfoReq.asp?R_ID=3123535).

## Equal Opportunity Employer

### NEC Laboratories America, Inc.

*Researcher - Data Science*

**NEC Laboratories America, Inc.** (<http://www.nec-labs.com/>) conducts research in support of NEC's US and global business. Our lab has a broad research program that covers many areas and maintains a balance of fundamental and applied research.

The Data Science and System Security Department aims to build novel big data solutions and service platforms that simplify complex systems management, and to develop new information technology that supports innovative applications, from big data analytics to the Internet of Things. Our research is both experimental and theoretical, covering many domains in data science and artificial intelligence, such as: time series mining, graph mining, text mining, anomaly detection, signal processing, and streaming processing. The goal

of our research is to fully understand the dynamics of big data from complex systems, retrieve patterns to profile them and build innovative solutions to help end user managing those systems. We have built a number of analytic engines and system solutions to process and analyze big data and support various applications in detection, prediction and optimization. Our research leads to both award-winning NEC products and publications in top conferences.

Our group is looking for researchers to work in the areas of artificial intelligence, machine learning or data mining. The ideal candidates must have expertise in one of the above areas, and can develop algorithms to analyze massive data and build innovative applications. S/he must have a PhD in CS/CE with a strong publication record in at least one of the following areas:

- Data Mining and Machine learning (especially deep neural networks)
- Time series analysis and prediction
- Text mining, natural language processing and information retrieval
- Graph and information network mining
- Large scale optimization and learning
- Signal processing, image processing and computer vision

**NEC Labs** is located in Princeton, NJ, home of Princeton University and one of New Jersey's most beautiful and idyllic towns. The area offers many exciting cultural, entertainment and outdoor activities. The

office is minutes away from Princeton University and an hour from New York, Philadelphia, and the Atlantic Ocean.

For more information about NEC Labs, please access <http://www.nec-labs.com> and submit your CV and research statement through our career center at [https://www.appone.com/MainInfoReq.asp?R\\_ID=3108918](https://www.appone.com/MainInfoReq.asp?R_ID=3108918).

Equal Opportunity Employer

### New York Institute of Technology

*Computer Science Faculty Position - Cyber Security, Vancouver*

New York Institute of Technology (NYIT) is a non-profit independent, private institution of higher education with more than 10,000 students worldwide. Offering 90-degree programs, including undergraduate, graduate, and professional degrees, in more than 50 fields of study, NYIT has conscientiously followed its mission of providing career-oriented professional education. Its academic programs prepare students for some of the most in-demand careers in today's global economy, in areas including architecture and design; arts and sciences; education; engineering and computing sciences; health professions; management; and osteopathic medicine. NYIT is an AA/EEO institution.

New York Institute of Technology, Vancouver Campus is seeking a full-time Assistant Professor of Computer Science (one position). This position will primarily

teach graduate courses in the Master of Science in CyberSecurity program at NYIT's Vancouver Campus.

Candidates must have an earned doctorate degree in Computer Science or a related field preferably Cyber Security. The successful candidate must have excellent communication skills, a record of publications and demonstrated ability to teach and apply for research grants.

Send a cover letter and teaching/research statements, CV, three references with NYIT Vancouver MS Cybersecurity Faculty Position in the subject line of your submission to Tokunbo Makanju at [amakanju@nyit.edu](mailto:amakanju@nyit.edu). The position will remain open until filled.

We welcome applications from women, visible minorities, Indigenous Peoples, individuals with disabilities, persons of any sexual orientation or gender identity, and all people committed to meaningful work that makes a difference.

Preference will be given to Canadian Citizens and Permanent Residents.

## Old Dominion University

### *Computer Engineering/Cybersecurity - Assistant Professor*

Job Description: The Department of Electrical and Computer Engineering at Old Dominion University seeks highly qualified applicants for a tenure-track Assistant Professor position in Computer Engineering with expertise in the broad areas of cybersecurity and cyber

operations. The successful candidate will join the Department of Electrical and Computer Engineering and hold a joint appointment in the School of Cybersecurity. The department places high value on excellence in research and teaching and seeks to complement the existing research and academic strengths in cybersecurity and cyber operations.

Minimum Qualifications – A Ph.D. in computer engineering or a closely related field is required for appointment. Successful applicants are expected to have demonstrated research and scholarship success in cybersecurity and cyber operations and show potential for developing and maintaining an externally funded, high-quality research program.

Applications should be submitted electronically to <https://jobs.odu.edu> and should include a letter of interest describing the individual's qualifications for the position, a curriculum vitae, statement of research interests, statement of teaching philosophy, statement of plans to advance diversity, equity and inclusion, contact information for three professional references including email addresses and phone numbers, and unofficial graduate transcripts. Review of applications will begin October 12, 2020, and continue until the position is filled.

Statement on Diversity, Equity and Inclusion – The Department of Electrical and Computer Engineering is dedicated to systemically building and maintaining a culture of inclusive excellence that values and embraces diverse faculty. We are committed to recruiting and retaining

diverse faculty and supporting the scholarly efforts of faculty. Diversity and inclusion are essential to Old Dominion University's strength as an institution of higher learning. We strive to create a climate of innovation, creativity and collaboration across disciplines and cross-culturally. Successful candidates are expected to address the needs of a diverse student population. Individuals from underrepresented populations are strongly encouraged to apply.

## Oregon State University

### *School of Electrical Engineering and Computer Science (EECS)*

#### *AI/Data Science Instructor-Online Computer Science Program*

The School of Electrical Engineering and Computer Science (EECS) currently serves over 3,500 students and ranks #2 nationally in the number of CS degrees conferred per year. Through this program and others, the College of Engineering delivers a transformational education that graduates leaders who drive change throughout their lives. The university's Ecampus partners with more than 700 faculty members and has earned national acclaim for the quality of its faculty development program. Ecampus is a widely respected leader in online education, having been ranked in the top 10 nationally five years in a row by U.S. News & World Report. OSU offers both an online Bachelor's degree in CS and an online Post Bacc program that enables students with a Bachelor's degree

outside CS to earn a CS degree in an accelerated fashion.

Oregon State University's (OSU) School of EECS invites applications for online Instructors of Artificial Intelligence and/or Data Science in our Computer Science program. Available Instructor positions are fixed-term, non-tenure-track, 9-month and 12-month, part-time and full-time (.30 to 1.0 FTE), with the possibility of renewal at the discretion of the School Head. This program is fully online and does not require Instructors to live within the vicinity of the Corvallis campus. Remote candidates who are hired will receive a telecommute package including computer, monitor, and headset. Candidates would be expected to attend a 1-week initial in-person training and then come to the Corvallis campus for 1 week every 6 months. Travel expenses will be reimbursed according to university guidelines. (Due to COVID-19, in-person training may be held remotely through video applications).

Candidates should hold a Master's degree in Computer Science or a related field and have experience teaching, mentoring and facilitating learners, preferably in an online setting. Candidates must also be able to demonstrate a deep understanding of Artificial Intelligence and/or Data Science.

The OSU College of Engineering is committed to being recognized as a national model of inclusivity and collaboration. We strive to develop a community of faculty, students, and staff that is inclusive, collaborative, diverse and

centered on student success. As such, we seek applicants who will broaden our capacity to advance student success across individual identities, racial/ethnic categories and socioeconomic backgrounds.

More detailed information on minimum and preferred requirements can be found at the position posting: <https://jobs.oregonstate.edu/postings/93807>

Review of applications will begin on September 15, 2020 and will continue until the position is filled.

## Oregon State University

### *College of Engineering*

#### *Associate Head Position in Online and Continuing Education*

The College of Engineering at Oregon State University (OSU) invites applications for an Associate Head for Online and Continuing Education in the School of Electrical Engineering and Computer Science (EECS). The successful candidate will also hold a tenured appointment within EECS at the rank of Associate or full Professor.

The Associate Head (AH) oversees the EECS online and continuing education programs, whose principal target markets are students interested in pursuing careers as professional software engineers. Candidates therefore should have experience in software engineering or related disciplines, coupled with experience as a successful teacher and creator of educational content.

The selected candidate will initially hold joint appointments as Associate Head (0.50 FTE on a 12-month basis) and associate or full professor (0.50 FTE on a 9-month basis). Reappointment as Associate Head is at the discretion of the School Head.

Oregon State University maintains an institution-wide commitment to diversity, multiculturalism, and community, and seeks to recruit and retain a diverse workforce and student body that includes members of historically underrepresented groups. We strive to build and sustain a welcoming and supportive campus environment. The university is located in Corvallis, at the heart of Oregon's Willamette Valley and close to Portland's Silicon Forest with numerous collaboration opportunities. The College of Engineering (CoE) boasts of strong graduate programs in Robotics and AI and a newly established Collaborative Robotics and Intelligent Systems Institute (CoRIS). Corvallis has been ranked # 1 on a list of "Best Places for Work-Life Balance" and is within easy reach of the Cascade Mountains and the Oregon Coast.

Oregon State University has a strong institutional commitment to diversity and multiculturalism and provides a welcoming atmosphere with unique professional opportunities for leaders from underrepresented groups. We are an Affirmative Action/Equal Opportunity employer, and particularly encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals with disabilities,

veterans, LGBTQ community members, and others who share our vision of an inclusive community.

Apply online at <http://jobs.oregonstate.edu/postings/93198> with the following documents: A letter of interest; vita; a two-page statement of research interests; a one-page statement of teaching interests; a one-page statement on efforts towards equity and inclusion; and names and contact information for at least three references.

To be assured full consideration, applications must be received by September 15, 2020.

## Oregon State University

*School of Electrical Engineering and Computer Science (EECS)*

*Instructor for Online Computer Science Program*

The School of Electrical Engineering and Computer Science (EECS) currently serves over 3,500 students and ranks #2 nationally in the number of CS degrees conferred per year. Through this program and others, the College of Engineering delivers a transformational education that graduates leaders who drive change throughout their lives. The university's Ecampus partners with more than 700 faculty members and has earned national acclaim for the quality of its faculty development program. Ecampus is a widely respected leader in online education, having been ranked in the top 10 nationally five years in a row by U.S.

News & World Report. OSU offers both an online Bachelor's degree in CS and an online Post Bacc program that enables students with a Bachelor's degree outside CS to earn a CS degree in an accelerated fashion.

Oregon State University's (OSU) School of EECS invites applications for online Instructors in our Computer Science program. Available Instructor positions are fixed-term, non-tenure-track, 9-month and 12-month, part-time and full-time (.30 to 1.0 FTE), with the possibility of renewal at the discretion of the School Head. This program is fully online and does not require Instructors to live within the vicinity of the Corvallis campus. Remote candidates who are hired will receive a telecommute package including computer, monitor, and headset. Candidates would be expected to attend a 1-week initial in-person training and then come to the Corvallis campus for 1 week every 6 months. Travel expenses will be reimbursed according to university guidelines. (Due to COVID-19, in-person training may be held remotely through video applications).

Candidates should hold a Master's degree in Computer Science or a related field and have experience teaching, mentoring and facilitating learners, preferably in an online setting. Candidates must also be able to demonstrate a deep understanding in at least one area of high need for our program (Security, Operating Systems, Programming Languages) or in at least two areas of secondary need.

The OSU College of Engineering is committed to being recognized as a national model of inclusivity and collaboration. We strive to develop a community of faculty, students, and staff that is inclusive, collaborative, diverse and centered on student success. As such, we seek applicants who will broaden our capacity to advance student success across individual identities, racial/ethnic categories and socioeconomic backgrounds.

More detailed information on minimum and preferred requirements can be found at the position posting: <https://jobs.oregonstate.edu/postings/93799>

Review of applications will begin on September 15, 2020 and will continue until the position is filled.

## Pacific Institute for the Mathematical Sciences

*Director*

Applications are invited for the position of DIRECTOR of the Pacific Institute for the Mathematical Sciences (PIMS) for a term of up to five years, beginning on July 1, 2021. This appointment is renewable.

The Search Committee will consider dossiers beginning on October 7, 2020.

Further information about this position may be found at: <https://www.pims.math.ca/directorsearch2020>.

## Peking University

### *Tenure-Track and Research-Track Faculty Positions*

The Institute for Artificial Intelligence at Peking University (abbreviated as PKU-IAI) serves as a backbone to connect all AI related scientific and applied research activities in Peking University and to build the world-class AI research. PKU-IAI is actively attracting top talents to take PKU's strong advantage in interdisciplinary fields to jointly promote the breakthrough and development of AI through integration of science, engineering, medicine and humanities and social sciences.

The PKU-IAI is currently providing open positions for Tenure-Track and Research-Track faculties, including the domains of, but not limited to the following:

1. Mathematical and Physical Foundation of AI
2. Brain Inspired and AI Chips
3. Intelligent Software Systems
4. Visual Perception and Computing
5. Natural Language Processing
6. Cognitive Neuroscience
7. Intelligent Healthcare
8. Computational Social Science
9. Ethics of AI
10. Other interdisciplinary areas.

### **Requirements**

The applicants should have a solid background and produced influential

research results or development experiences in the preceding mentioned domains of artificial intelligence. The applicants are expected to be under the age of 40, and obtain a Ph.D. from well-known universities or research institutes within recent 5 years and have outstanding research and development records.

### **Salary and Working Condition**

The university and the research group provide competitive salary and working condition for successful applicants.

### **Application Procedures**

The applicants should send a detailed CV, research statement, teaching statement (not mandatory for research-track positions), future plan of the next 3-5 years, and a list of at least three referrals to [aipku@pku.edu.cn](mailto:aipku@pku.edu.cn). The title of the email should be in the form of **“Tenure-Track/Research-Track Faculty Application to PKU-IAI”**.

The next round of interview will coincide with the online Young Scientist Forum of PKU-IAI, on October 24th, 2020. This forum will also serve as an exciting opportunity for the young researchers to exchange academic ideas and latest innovations.

### **Important Dates**

1. Application Submission Deadline: September 25, 2020
2. Interview/Forum-Acceptance Notification: October 15, 2020
3. Young Scientist Forum: October 24, 2020

However, the recruitment will remain open until all the positions are filled. For more information, please visit our website: <http://www.ai.pku.edu.cn/info/1084/1414.htm>.

## Reed College

### *Tenure-Track Position in Computer Science*

### **Position Description**

The Department of Computer Science at Reed College invites applications for a tenure-track faculty position, rank open, beginning in the fall of 2021. Applicants should have a Ph.D. in computer science or a closely related field by the time of the appointment and should be committed to excellence in their teaching and in their scholarship. Applicants from all areas of computer science are welcome to apply, though particular attention will be given to applicants in systems/application research areas (e.g., networks, database systems, security, distributed computing, operating systems, robotics, etc.). The successful applicant will help teach the core computer science curriculum at all levels in the major, in cooperation with their fellow faculty, and will develop one or more courses in their areas of expertise. The department is committed to giving all its students the opportunity to explore research topics in computer science and in its applications. The successful candidate will advise several year-long senior thesis projects that are required of all Reed students.

Reed is a distinguished liberal arts college with approximately 1400 students that

offers a demanding academic program to bright and dedicated undergraduates. The college believes that cultural diversity is essential to the excellence of our academic program (see <https://www.reed.edu/diversity/>). Applicants to the position are encouraged to contact Adam Groce ([agroce@reed.edu](mailto:agroce@reed.edu)), the chair of the search committee, for further details about the position and the college's computer science program. Information about the position is also posted at <https://www.reed.edu/computer-science/faculty-search.html>.

## Application Instructions

Applicants should submit their applications electronically through Interfolio at <http://apply.interfolio.com/77853> and should include a cover letter, curriculum vitae, teaching statement, research statement, diversity statement, and three letters of recommendation. The cover letter should address how the applicant's teaching and scholarship are suited to the liberal arts college environment. The diversity statement should address how the applicant can further the diversity and inclusivity of the computer science program.

Though thorough review of applications will continue until the position is filled, applications submitted by October 30, 2020, are assured to get the fullest consideration. Reed College is an Equal Opportunity Employer and is committed to building an excellent diverse scholarly community. Members of underrepresented groups are especially encouraged to apply.

## Rider University

### Faculty - Computer Science & Physics

The Computer Science program at Rider University welcomed its first students in Fall 2017 and has surpassed enrollment expectations. The Department of Computer Sciences & Physics at Rider University invites applications for two tenure-track faculty positions at the Assistant Professor level to join this growing effort. Applicants from all research areas will be considered, especially those with expertise in cybersecurity or artificial intelligence.

In alignment with Rider's mission which seeks to prepare "...responsible citizens who embrace diversity, support the common good, and contribute meaningfully to the changing world in which they live and work," the successful candidates will fulfill the following responsibilities:

- Teach undergraduate courses, including classes in the major at all levels.
- Expand the curriculum, including the development of new courses for non-majors and additional tracks within the Computer Science & Cybersecurity programs.
- Integrate undergraduates into their research agendas.
- The successful candidates will meet the following requirements:
  - A Ph.D. in Computer Science or a closely related field. ABDs will be considered as long as they successfully defend prior to Fall 2021.
  - Demonstrated excellence in their teaching and research and be able to speak to how

they will contribute to a diverse science community at Rider, including forging interdepartmental collaborations.

- Demonstrated commitment supportive of the multicultural needs of Rider University and the surrounding community.
- Post-doctoral and college-level teaching experience is preferred.

To apply for position no.312538, please visit RiderHires at <http://rider.peopleadmin.com/postings/6628>.

Rider University is an Equal Opportunity/Affirmative Action Employer.

## Saint Louis University

### Postdoc in Computer Networks

The Department of Computer Science at Saint Louis University is inviting applications for a full-time postdoctoral scholar in Computer Networks. The postdoc will conduct research at the intersection between network management, (cutting) edge computing, and machine learning. The researcher will work closely with a multi-disciplinary team of students, faculty, and industry members, in the recently completed Saint Louis University *Interdisciplinary Science and Engineering Building*.

The Researcher should have a Ph.D. degree in computer science or a closely-related discipline, a good publication record, and should be familiar with machine learning for networks, networks for machine learning, and network management.

**Women and individuals from underrepresented minority groups are especially encouraged to apply.**

<https://cs.slu.edu/hiring>

## Santa Clara University

*Tenure-Track Assistant Professor of Computer Science and Engineering*

### Purpose:

The Department of Computer Science & Engineering at Santa Clara University invites applications for two tenure-track Assistant Professor positions starting in the 2021-2022 academic year. To complement the expertise of current faculty, address areas of strong interest to students, and enhance collaboration opportunities with local industries, the department is particularly interested in candidates with specializations in software engineering, programming languages, HCI, visualization (AR/VR), and database systems. However, Silicon Valley is an area of broad and ever-changing technical interests and needs, and strong candidates will be seriously considered regardless of area of specialization.

Santa Clara University (<https://www.scu.edu>) is a comprehensive Jesuit, Catholic university, located in the heart of Silicon Valley, offering rigorous undergraduate curricula in arts and sciences, business, and engineering, plus graduate degrees (master's, Ph.D., and law degrees) in six disciplines. Santa Clara University is California's

oldest operating institution of higher education. Distinguished by the highest retention rate and has been ranked first among all regional universities in the West by U.S. News and World Report, Santa Clara University is now elevated to a new category in national rankings, "Doctoral/Professional Universities." Santa Clara University's ranking in the 2020 edition of Best Colleges is National Universities, #54.

The University is focused on creating an academic community that educates citizens and leaders who will build a more just, humane, and sustainable world. The School of Engineering is committed to improving the human condition through engineering education, practice, and scholarship, promoting the University's mission to "fashion a more humane, just and sustainable world."

SCU maintains small class sizes and promotes close faculty/student interaction. The University enrollment is approximately 5,500 undergraduate and 3,700 graduate students. The Department (<http://www.scu.edu/engineering/cse/>) offers B.S., M.S. and Ph.D. degrees, with 22 full-time faculty, and a strong pool of approximately 25 part-time adjunct faculty who instruct about 400 undergraduate majors, and about 450 part-time and full-time graduate (M.S. and Ph.D.) majors. The School of Engineering maintains strong ties to local industry.

SCU and the computer science and engineering profession are committed to justice, equity, diversity, and inclusion;

we seek candidates whose research, teaching, and/or service have prepared them to help fulfill our commitment to these. All SCU faculty engage in teaching, research and service. The ideal candidate will express enthusiasm for teaching classes from undergraduate through graduate courses in areas of specialization, and lower-division courses of a fundamental nature, fulfilling all responsibilities related to those courses, and for engaging students from diverse backgrounds in learning. The successful candidate will be expected to develop her/his own scholarly research, including mentoring undergraduate and graduate students. Developing an active research program appropriate to Santa Clara's mission that leads to high-quality publications, grant applications, and engages students as participants is an expectation of the position.

We welcome candidates who are ready to contribute to our mission to educate citizens and leaders of competence, conscience, and compassion and to cultivate knowledge and faith to build a more humane, just, and sustainable world. We especially encourage applicants whose goals and professional or life experiences enrich the department and school community and who can serve as a role model to a diverse student population.

### Salary:

Based on experience, education, and expertise.

## Basic Qualifications:

Applicants must hold a doctorate in computer science, computer engineering, or in a closely related field; have demonstrated a strong potential for high-quality research in computing; and have a strong commitment and ability to teach at both the undergraduate and graduate levels. The full-time teaching load is nominally seven quarter-level courses per academic year (each quarter is 10 weeks excluding the final exams week), but a one-course release is given to faculty actively involved in research and course credit is also given for project, thesis, and laboratory supervision. The first-year tenure-track assistant professor is granted an additional one-course release. Limited course buyout may be approved using external grant funds.

## Responsibilities:

Teaching undergraduate and graduate courses in areas of specialization, and courses of a fundamental/core nature, and fulfilling all responsibilities related to those courses.

The standard academic year course load for tenured and tenure-track positions is seven quarter-level course equivalents, generally with a one-course equivalent reduction for scholarly or creative work. The first-year tenure-track assistant professor is granted an additional one-course release.

Course equivalents include lectures and supervision of labs, theses, dissertations, and projects, distributed across three-quarters of 10 weeks each.

Developing a research program that leads to high-quality publications, competitive for funding by external sources, and engages students as participants in that research.

Appropriate service to the department, school, university, and profession.

## Start Date: 09/01/2021

## Work Authorization:

A foreign national who is appointed to a tenured or tenure-track faculty position is eligible for sponsorship by Santa Clara University.

## Special Instructions to Applicants:

Applicants should upload a letter of application, a detailed CV, and the names and contact information of three professional references.

All letters of application MUST include statements of research interests, statements of teaching interests, and statements of equity, diversity, and inclusion. An equity, diversity, and inclusion (EDI) statement describes past, present, and planned contributions to equity, diversity, and/or inclusion in engineering or other areas.

All materials should be submitted online at [https://wd1.myworkdaysite.com/en-US/recruiting/scu/scu/job/Santa-Clara-CA/Tenure-Track-Assistant-Professor-of-Computer-Science-and-Engineering\\_R879](https://wd1.myworkdaysite.com/en-US/recruiting/scu/scu/job/Santa-Clara-CA/Tenure-Track-Assistant-Professor-of-Computer-Science-and-Engineering_R879).

Complete application packets received by November 15, 2020, will receive full consideration. However, the position will remain open until filled.

## EEO Statement:

Santa Clara University is an Equal Opportunity/Affirmative Action employer, committed to excellence through diversity and inclusion, and, in this spirit, particularly welcomes applications from women, persons of color, and members of historically underrepresented groups. All qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity or expression, age, status as a protected veteran, status as a qualified individual with a disability, or other protected category in accordance with applicable law. The University will provide reasonable accommodations to individuals with a disability.

Santa Clara University annually collects information about campus crimes and other reportable incidents in accordance with the federal Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act. To view the Santa Clara University report, please go to the Campus Safety Services website at <https://university-operations.scu.edu/campus-safety/>. To request a paper copy please call Campus Safety at (408) 554-4441. The report includes the type of crime, venue, and number of occurrences.

## Required Documents:

1. Letter of Interest, with statements of research interests, statements of teaching interests, and statements of equity, diversity and inclusion

# Professional Opportunities

2. Curriculum Vitae
3. First Professional Reference  
Contact Information
4. Second Professional Reference  
Contact Information
5. Third Professional Reference  
Contact Information

**References:**

- Accept References? Yes
- Minimum Number of References? 3
- Maximum Number of References? 3

## Smith College

*MassMutual Assistant Professor of  
Statistical & Data Sciences*

The Program in Statistical & Data Sciences at Smith College invites applications for a tenure-track position at the rank of Assistant Professor, to begin July 1, 2021. Ph.D. in Statistics, Biostatistics, Data Science, Computer Science, or another relevant field is expected by the time of appointment. Candidates from any field in Statistics and Data Science are encouraged to apply. The position has a teaching load of 2:2 -- i.e., four semester-long courses over the academic year. Teaching responsibilities for this position will regularly include introductory statistics or data science, as well as intermediate and advanced-level courses in their area of interest, for example data ethics, data journalism, machine learning, data visualization, and natural

language processing. Candidates from groups underrepresented in STEM are encouraged to apply.

Details about the Statistical and Data Sciences Program may be found at <http://www.smith.edu/sds>.

For more information and to apply, visit <https://apply.interfolio.com/78414>.

Review of applications will begin on

October 15, 2020.

EO/AA/Vet/Disability Employer.

## Toyota Technological Institute at Chicago

*Tenure-Track and Research  
Faculty Positions*

The Toyota Technological Institute at Chicago (TTIC) invites applications



**iACS**  
INSTITUTE FOR ADVANCED  
COMPUTATIONAL SCIENCE

## POSTDOCTORAL FELLOWSHIPS

**Stony Brook University IACS**  
is now inviting **applications** from  
outstanding computational scientists  
from any discipline to apply to  
its **postdoctoral fellowship  
program**

This prestigious fellowship offers the opportunity  
for independent, highly interdisciplinary research  
with:

- Highly competitive compensation
- Comprehensive medical, dental, and vision benefits
- Unrestricted travel and research allowance of \$10,000
- High performance computing resources and support
- Professional development opportunities

**DEADLINE  
NOVEMBER 01**

**FOR APPLICATION  
CONTACT US!**  
+(01) 631 632 4629  
[iacs@stonybrook.edu](mailto:iacs@stonybrook.edu)  
[www.iacs.stonybrook.com](http://www.iacs.stonybrook.com)

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WITH  
US!**

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-  @IACSComputes
-  @IACS Stony Brook

for the following faculty positions in computer science:

- tenure-track assistant professor
- full or associate (tenured) professor
- research assistant professor (three-year term)
- visiting professor

While we welcome applications from many areas of computer science, we will give preference to candidates working in the following areas:

- machine learning
- computer vision
- natural language processing and speech
- robotics
- computational biology
- algorithms and complexity theory

## About TTIC

TTIC ([www.ttic.edu](http://www.ttic.edu)) is a philanthropically endowed academic institute dedicated to fundamental research and graduate education in computer science. All TTIC faculty positions are supported by the endowment.

TTIC produces cutting-edge research and offers world-class graduate education. Our faculty routinely publish their results at top conferences and are recognized with distinctions such as the Sloan Research Fellowships, NSF CAREER Awards, Best Paper Awards, and the NAS Michael and Sheila Held Prize. TTIC research faculty alumni have an excellent employment track record (<https://www.ttic.edu/faculty-alumni/>).

Further, TTIC faculty members enjoy a uniquely light teaching load, which helps them focus on their research. TTIC has only PhD students, so all courses and activities are focused on advanced learning and research.

Located on the University of Chicago campus, TTIC has strong ties to the University. In addition to having access to TTIC's excellent computing infrastructure, faculty members benefit from many of the University of Chicago's state-of-the-art facilities, as well as opportunities to collaborate with UChicago faculty and students.

TTIC faculty members frequently collaborate with colleagues from leading academic institutions around the world (travel and visitor hosting are strongly supported by TTIC).

TTIC faculty and students enjoy the close proximity of a vibrant urban environment with flourishing culture, business, and entertainment scenes.

We invite candidates with an outstanding academic record and passion for computer science research to join our world-class team of 12 tenured/tenure-track and 13 research faculty members ([www.ttic.edu/faculty/](http://www.ttic.edu/faculty/)).

## Teaching Requirements

Tenured/tenure-track faculty teach one quarter per year. Research faculty have no teaching duties, but have the opportunity to teach and co-advise students.

## TTIC/Simons-Berkeley Joint Program

Applicants for research assistant professor (RAP) positions in relevant areas are encouraged to simultaneously apply for the TTIC RAP program and the Simons-Berkeley Research Fellowship.

Applicants selected by TTIC will be offered an RAP position. Applicants selected by both institutions will be able to participate in a program at the Simons Institute before joining TTIC. Please note that applicants interested in the joint program must submit separate applications to TTIC and the Simons Institute.

## Benefits

Benefits at TTIC include excellent medical PPO or HMO insurance through Blue Cross Blue Shield of Illinois, and dental and vision insurance through Principal (80% employer paid). TTIC also provides employer-paid short-term and long-term disability and life insurance, as well as Flexible Spending Accounts for healthcare, transit and parking. Retirement benefits include a 401(k) with a gift of 3% of the employee's annual salary and a contributory match of up to 5% of annual salary. Dependent benefits include generous college tuition benefits at any accredited college or university.

## Timeline

We will start reviewing applications on December 1, 2020, and will continue until the positions are filled.

## Application Requirements

1. cover letter
2. curriculum vitae
3. research statement
4. teaching statement (optional for RAP applicants)
5. names and contact information of at least three references

If interested in the joint program, please check the Simons Fellowship requirements (<https://simons.berkeley.edu/programs/fellows>). Please note that the Simons Institute has a different deadline.

## Where to Apply

Please apply here:  
<https://ttic.edu/facultyapplication>

Senior applicants may directly contact the Chief Academic Officer (avrim@ttic.edu) or faculty members in their areas.

## Questions

[recruiting@ttic.edu](mailto:recruiting@ttic.edu)

In keeping with its long-standing traditions and policies, Toyota Technological Institute at Chicago (TTIC) considers students, employees, applicants for admission or employment, and those seeking access to TTIC programs on the basis of individual merit.

In accordance with federal, state, and local law, TTIC does not discriminate on the basis of sex, race, color, religion, national origin, citizenship, ancestry, age, marital status, physical or mental disability, medical condition, genetic

information, pregnancy or perceived pregnancy, gender, gender identity, gender expression, sexual orientation, protected military or veteran status, or any other protected status under the law, including Title IX of the Education Amendments of 1972. TTIC prohibits discrimination based on legally protected status with respect to all employment-related decisions, educational and admissions policies, personnel actions, and academic actions.

TTIC is committed to providing a respectful and positive environment for all members of its community, free from all forms of discrimination and harassment.

## Tufts University

### Multiple Open Faculty Positions

The Department of Computer Science at Tufts University invites applications for multiple open faculty positions. For more information about the department or these positions, please visit <http://go.tufts.edu/CSpositions>.

### Tenure-track faculty position in Quantum Computing starting Fall 2021.

We seek candidates at the rank of Assistant or Associate Professor with research in Quantum Computation and Information. We are interested in candidates with a strong background in theoretical computer science whose research connects with our current faculty in quantum information and beyond. Please submit your application through Interfolio at <https://apply.interfolio.com/78094>. Review of

applications will begin December 15, 2020 and will continue until the position is filled. Inquiries should be emailed to [ttsearch@cs.tufts.edu](mailto:ttsearch@cs.tufts.edu).

### Tenure-track faculty position in Engineering Education starting Fall 2021.

Tufts School of Engineering invites applications for an Assistant Professor in Engineering Education Research, for a primary appointment in any of its six departments (including Computer Science). The position will affiliate with the *Institute for Research on Learning and Instruction (IRLI)*. Please submit your application through Interfolio at <https://apply.interfolio.com/66334>. Review of applications will begin December 1, 2020 and will continue until the position is filled. Inquiries should be emailed to search chair [chris.swan@tufts.edu](mailto:chris.swan@tufts.edu).

### Teaching-track faculty position starting Spring or Fall 2021.

We seek candidates at the rank of Assistant Teaching Professor, with expertise in any area of Computer Science or a closely related field and with strong foundational knowledge in one or more areas of our core curriculum. This is a full-time, non-tenure-track position. The initial appointment is for two years, with possible renewal contingent on annual performance review results. A doctoral degree is preferred but not required. Please submit your application through Interfolio at <https://apply.interfolio.com/78107>. Applications are due December 15, 2020, but review of applications will begin October 15, 2020 and continue until the position

is filled. Inquiries should be emailed to [cssearch@cs.tufts.edu](mailto:cssearch@cs.tufts.edu).

Throughout their application, candidates are encouraged to demonstrate their attention to diversity and inclusion as these topics relate to teaching, research, and engagement within the academic environment. The Tufts CS department has grown significantly in the past decade in faculty, student size, and research funding. Tufts offers the best of a liberal arts college atmosphere coupled with the intellectual and technological resources of an R1 research university. We support and encourage a culture of interdisciplinary research, and there are numerous such opportunities within the university. Located only six miles from historic downtown Boston, faculty members on the Tufts Medford/Somerville campus have extensive opportunities for academic and industrial collaboration outside of Tufts as well as participation in the rich intellectual life of the area.

Tufts University is an Equal Opportunity/Affirmative Action Employer. We are committed to increasing the diversity of our faculty and staff and fostering their success when hired. Members of underrepresented groups are welcome and strongly encouraged to apply. See the University's Non-Discrimination statement and policy at <https://oeo.tufts.edu/policies-procedures/non-discrimination/>. If you are an applicant with a disability who is unable to use our online tools to search and apply for jobs, please contact us by calling Johny Laine in the Office of Equal Opportunity (OEO)

at 617-627-3298 or at [Johny.Laine@tufts.edu](mailto:Johny.Laine@tufts.edu). Applicants can learn more about requesting reasonable accommodations at <http://oeo.tufts.edu>.

## University of British Columbia

*Assistant Professor (Tenure Track) or Associate Professor (Tenure), Tier 2 Canada Research Chair | Department of Pediatrics, Faculty of Medicine & Computer Science, Faculty of Science*

The Department of Pediatrics, in the Faculty of Medicine, in partnership with the Department of Computer Science, in the Faculty of Science at The University of British Columbia (UBC) invite applications for an academic computer scientist for a CIHR Tier 2 Canada Research Chair (CRC) in Digital Health. The successful candidate will be eligible to hold an appointment at the rank of Assistant Professor (tenure track) or Associate Professor (with tenure). The successful applicant will also hold a concurrent appointment as an Investigator within the BC Children's Hospital Research Institute.

Applicants must have a PhD or MD/PhD in Computer Science or a related area. The successful candidate will have demonstrated ability to effectively communicate and interact with empathy, understanding and, respect of diverse and divergent perspectives and behaviours. They will also be expected to provide service to the Department(s), University and the broader academic and professional community.

If appointed at the rank of Assistant Professor, the successful candidate will have demonstrated evidence of ability in teaching and in scholarly activity. If appointed at the rank of Associate Professor, the successful candidate must demonstrate evidence of successful teaching and ability to direct graduate students, and evidence of sustained and productive scholarly activity.

Applicants must meet the eligibility requirement for a Tier 2 CRC position. Tier 2 Chairs are intended for exceptional emerging scholars (i.e., candidates must have been an active researcher in their field for fewer than 10 years at the time of nomination). Applicants who are more than 10 years from having earned their highest degree (and where career breaks exist, such as maternity, parental or extended sick leave, clinical training, etc.) may have their eligibility for a Tier 2 Chair assessed through the program's Tier 2 justification process. Nominations are subject to review by the CRC Secretariat, and appointment as a CRC is conditional upon their approval. Please consult the Canada Research Chairs website [www.chairs.gc.ca](http://www.chairs.gc.ca) for full program information, including further details on eligibility criteria.

A full description of the role and expectations can be found at: [www.facultycareers.ubc.ca/38113](http://www.facultycareers.ubc.ca/38113)

A letter of application outlining the applicant's research and teaching interests, accompanied by a detailed curriculum vitae and the names of four references should be directed to:

Dr. Wyeth Wasserman, Search  
Committee Chair

Vice-President (Research), BC Children's  
Hospital Research Institute

c/o Carolyne Bliss

Email: [carolyne.bliss@bcchr.ca](mailto:carolyne.bliss@bcchr.ca)

Subject Line: CRC Tier 2 in digital health

Review of applications will begin on  
November 1, 2020, and continue until the  
position is filled, with the goal to enter  
the spring 2021 national competition.  
The anticipated start date for this  
position is September 1, 2021, or upon a  
date to be mutually agreed. Salary will  
be commensurate with qualifications  
and experience.

## University of California, Davis

*Postdoctoral scholar in image processing  
and classification*

The University of California Davis  
DataLab is inviting applications for a  
full-time postdoctoral scholar in image  
processing and classification beginning  
Fall 2020. This postdoc will contribute  
independent research to a project focused  
on developing software for classifying  
digital images of historical printed  
materials based on both semantic and  
visual similarity. The scholar will work  
closely with a multi-disciplinary team of  
staff and faculty members at DataLab to  
develop improved segmentation, feature  
extraction, and statistical image analysis

and modeling methods and to implement  
both trained (CNN) and untrained (Deep  
Learning) classification systems. A full  
description of the position and application  
instructions can be found at [https://  
datalab.ucdavis.edu/2020/09/03/  
datalab-postdoc-job/](https://datalab.ucdavis.edu/2020/09/03/datalab-postdoc-job/).

## University of California Los Angeles

*Open Rank Faculty Position in Electrical  
and Computer Engineering*

Building upon its commitment to foster  
an inclusive environment and promote the  
success of underrepresented students,  
the Department of Electrical and Computer  
Engineering at UCLA Henry Samueli School  
of Engineering and Applied Science invites  
applications for an open-rank tenure-track  
faculty position.

Applicants for the position must have  
a demonstrated record of excellence  
or show exceptional promise for  
high-quality research, teaching,  
and professional development, as  
commensurate with rank. In addition,  
applicants must have a demonstrated  
record of interest in and commitment  
to the mentorship of students from  
underrepresented and underserved  
populations. The successful candidate  
will be expected to advance their active  
mentoring activities and participate in  
programs that provide research and  
professional development opportunities  
for our diverse student body (such as  
our Center for Excellence in Engineering  
and Diversity, our Women in Engineering

program, the National Society for Black  
Engineers, Society of Latino Engineers  
and Scientists, and American Indian  
Science and Engineering Society). Overall  
teaching and service expectations  
will not exceed those of other faculty  
positions. Applications for appointments  
at all levels will be considered (Assistant,  
Associate or Full Professor).

Applicants must have an earned PhD in  
Electrical and Computer Engineering or a  
related field. The Department is interested  
in all areas of research traditionally  
associated with Electrical and Computer  
Engineering, as well as emerging cross-  
disciplinary areas. Applicants must exhibit  
promise in developing and maintaining an  
extramurally supported research program,  
publishing and disseminating research  
findings, and serving as leaders at the  
forefront of their fields.

Application packages should be submitted  
online through [https://recruit.apo.ucla.  
edu/apply/JPF05682](https://recruit.apo.ucla.edu/apply/JPF05682). Please include the  
following documents: 1) curriculum vitae,  
2) statement of contributions to equity,  
diversity, and inclusion with particular  
attention to mentoring achievements  
and future mentoring goals, 3) statement  
of research interest, 4) statement of  
teaching interest, and 5) a cover letter.  
Initial screening of applications will take  
place based upon item 2.

***Review of applications will begin on  
November 1, 2020, and continue until  
positions are filled.***

The University of California is an Equal  
Opportunity/Affirmative Action Employer.

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy, see: UC Nondiscrimination & Affirmative Action Policy.

This General Data Protection Regulation (GDPR) Statement for Persons in the European Economic Area is designed to provide information regarding the types of Personal Information that the University of California's Human Resources departments and offices collect.

## University of Central Florida

*Professor and Director, School of Modeling, Simulation and Training*

The University of Central Florida is accepting applications for Professor and Director of the School of Modeling, Simulation, and Training (SMST). This is a 12-month, state-funded appointment within SMST at the rank of professor with tenure. The Director oversees all activities and personnel within SMST, providing strategic, technical, financial, and administrative leadership. Direct reports include the Deputy Director of the Institute for Simulation & Training, the program director of the Modeling and Simulation (M&S) graduate programs, and the fiscal & contract manager. We welcome qualified candidates whose background reflects the interdisciplinary

nature of MST, and whose experience reflects a track record of successful research administration, including effective organizational and personal communication and motivation. The director has the opportunity to shape the future of the school, and to play a central role in the associated university, regional, state, national, and international impacts.

For more information about this position, see <http://www.ucf.edu/jobs>

As an equal opportunity/affirmative action employer, UCF encourages all qualified applicants to apply, including women, veterans, individuals with disabilities, and members of traditionally underrepresented populations. As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.

## University of Louisville

*Assistant Professor Term Position in Computer Science and Engineering (Teaching or Research-Track Position Available)*

The Department of Computer Science and Engineering at the University of Louisville is seeking a candidate for a Term Assistant Professor Position (non-tenure track) with a start date in January, 2021. Ideal candidates will have a Ph.D. in Computer Science and/or Computer Engineering (or a closely related field), a strong grasp of the fundamentals, and a willingness to engage with and work with others. The subjects of teaching and

research include but are not limited to C/C++, Java/OOP, Data Structures, Discrete Math, Cybersecurity, Embedded Systems, Databases, Software Engineering, and Operating Systems.

Applications consist of a cover letter that indicates qualifications for the position (1 page), a max-2-page statement of teaching experience and philosophy (for the teaching position) or a statement of research experience and upcoming research plan (for the research position), a current curriculum vitae, and a list of names and contact information for 3 references. Materials are to be submitted online via <https://www.higheredjobs.com/institution/search.cfm?aID=7137&ltype=2>. Job ID No.: 39668. Review of applications will begin on September 30, 2020; applications will be accepted until the position is filled.

EEO/AA Policy: The University of Louisville is an Affirmative Action, Equal Opportunity, Americans with Disabilities Employer, committed to diversity and in that spirit, seeks applications from a broad variety of candidates.

## University of Memphis

*Postdoc Computer Science*

*Green Mountain Technology* has partnered with the University of Memphis to fund a postdoctoral position in the field of computer science. The aim of this position is to provide the individual with the ability to deepen the applicants

scientific and technical abilities, provide opportunities to enhance their research experience, and help GMT understand and advance their system in order to process an ever growing amount of data in a time critical manner. The individual will be involved with the goals and strategies of the company, and how their research and findings can help the company moving forward into a rapidly changing future.

The need to process and create rapid actionable information for our customers will drive much of the research opportunities. The individual we seek will have a solid background in data analytics and research in large data sets. They should be comfortable with how to deliver massively parallel systems to process data streams. They can work well with the teams at GMT. This position will offer freedom to help explore the boundaries of what is possible, follow their intellectual curiosity and find answers in data and systems that take time and research to find and mature.

We also want the candidate to ensure that their needs are met in understanding how to be a better researcher, publishing of their findings, and ability to work with GMT on patentable materials.

#### Tasks:

- pursuit of an excellent independent research agenda in the area of machine learning for supply chain delivery optimization
- Research in developing real time analytics systems for route optimizations across multi carriers
- blue-sky, curiosity-driven research when data leads to new opportunities.

#### Personal Characteristics:

- High motivation for research and willingness to learn
- Self-motivated, focused and goal-oriented
- Ability to work independently, perseverance and commitment
- Team player, collaborative and value the inputs of others

Apply here <https://workforum.memphis.edu/postings/25792>

## University of Notre Dame

### *Tenure-Track Faculty Position in Data-Driven Advanced Manufacturing*

Content: The Department of Aerospace and Mechanical Engineering (<https://ame.nd.edu/>) and the Department of Computer Science and Engineering (<https://cse.nd.edu/>) at the University of Notre Dame invite applications for a tenure-track faculty position in the area of data-driven advanced manufacturing. This faculty member may be appointed by either department or may hold a joint appointment with both departments. The position is part of a Data and Society cluster hiring initiative and the faculty member is anticipated to be affiliated with or to significantly interact with both the newly established iNDustry Labs ([industrylabs.nd.edu](http://industrylabs.nd.edu)) and Institute for Data & Society. The faculty member will be expected to initiate and lead solo and collaborative research projects in areas

such as industrial automation and control, Industrial Internet-of-Things, machine learning and artificial intelligence applied to advanced manufacturing, big data and analytics including visualization and automatic handling, security of advanced manufacturing solutions, or other relevant areas that cross the boundaries of advanced manufacturing and data science.

Candidates at all ranks will be considered. The College of Engineering at the University of Notre Dame seeks to attract, develop, and retain excellent faculty members with strong records and future promise, especially those who will contribute to the diversity and excellence of the University's academic community through their research, teaching, and service. All applicants must have an earned doctorate in an appropriate discipline. Successful candidates will have demonstrated the potential to achieve an internationally distinguished record of scholarship, a diverse, externally funded research program, excellence in undergraduate and graduate education, and active service within both their research community and the university.

Applicants should submit a cover letter, CV, research statement, teaching statement, and contact information for three professional references via <http://apply.interfolio.com/77801>. To guarantee full consideration, applications must be received by November 6, 2020; however, review of applications will continue until December 1, 2020.

## University of Notre Dame

### *Multiple Open Positions*

Content: The Department of Computer Science and Engineering at the University of Notre Dame invites applications for three tenure-track faculty positions. The Department seeks to attract, develop, and retain excellent faculty members with strong records and future promise. The Department is especially interested in candidates who will contribute to the diversity and excellence of the University's academic community through their research, teaching, and service.

One position is at the Assistant Professor rank and in any research area. Priority areas of research interest include the interface of computer science and biology (computational biology, bioinformatics, and related areas), robotics, human-computer interaction, and security.

Another position is at any rank and in the area of quantum computing. Candidates are expected to pioneer development of novel quantum computing applications in chemistry, physics, and engineering, to create tools for increasing the efficiency of quantum computers, and to develop quantum algorithms and techniques to address new application areas such as data analytics. The College of Engineering with the College of Science and the Center for Research Computing have established a partnership with the IBM Q Network and the department is seeking new faculty who wish to collaborate in this quantum computing effort.

The last position is at any rank at the intersection of ethics and technology. The candidate hired into this position will be affiliated with the Technology Ethics Center (ND TEC).

Applicants must submit a cover letter, CV, research statement, teaching statement, and contact information for three professional references. Applicants are also encouraged to submit an optional statement on equity, diversity, and inclusion. To guarantee full consideration, applications must be received by November 6, 2020; however, review of applications will continue until January 15, 2021. Information about all positions may be found at <https://cse.nd.edu/join-us/faculty-job-openings> including links to the specific job openings.

The Department offers the Ph.D. degree and undergraduate Computer Science and Computer Engineering degrees. Faculty members are expected to excel in classroom teaching and to lead highly-visible research projects that attract substantial external funding. More information about the department can be found at: <https://cse.nd.edu/>.

The University is an Equal Opportunity and Affirmative Action employer; we strongly encourage applications from women, minorities, veterans, individuals with a disability and those candidates attracted to a university with a Catholic identity.

## The University of Texas at El Paso

### *Tenure-Track Assistant Professor in Computer Science*

The Department of Computer Science invites applications for an Assistant professor position starting fall 2021 in the areas of Artificial Intelligence and/or Engineering Education.

For details including required qualifications and application instructions, please visit our <https://www.utep.edu/employment>

*UTEP is an Equal Opportunity/Affirmative Action employer.*

## The University of Texas at El Paso

### *Two Tenure-Track Assistant Professors In Computer Science*

The Department of Computer Science invites applications for two Assistant Professor positions beginning in fall 2020. For information about these positions including required qualifications and application instructions, please visit our website at <https://utep.interviewexchange.com/jobofferdetails.jsp?JOBID=115743>

*The University of Texas at El Paso is an Equal Opportunity/Affirmative Action employer. The University does not discriminate on the basis of race, color, national origin, sex, religion, age, disability, genetic information, veteran status, sexual orientation or gender identity in employment or the provision of services.*

## University of Toronto Mississauga

### *Assistant Professor, Teaching Stream - Computer Science*

The Department of Mathematical and Computational Sciences at the University of Toronto Mississauga (UTM) invites applications for a full-time teaching stream appointment in Computer Science. The appointment will be at the rank of Assistant Professor, Teaching Stream, and will commence on July 1, 2021, or shortly thereafter.

We seek candidates who have a record of excellent teaching and demonstrated interest in establishing a long-term teaching career with the Department. A Master's degree in Computer Science or related discipline by the time of the appointment is required; a Ph.D. is preferred.

Candidates must have teaching interests that complement and enhance existing departmental strengths (see <https://www.utm.utoronto.ca/math-cs-stats/home>). We are seeking candidates whose expertise is in information security or the general area of systems. A focus in information security is strongly preferred.

We require that candidates have teaching expertise in a degree-granting program at the undergraduate program level, including lecture preparation and delivery, curriculum development, and development of online material/lectures; have demonstrated commitment to excellent pedagogical practices; and have engaged

with students both in and out of a course setting (for example, running seminars, contests, workshops, and engaging with student-run initiatives). Preference will be given to candidates who have developed curriculum for new and existing courses; have contributed to departmental administration (for example, through course coordination or by managing TAs) and have supervised undergraduate or graduate research projects. Candidates must demonstrate strong organizational, interpersonal, and communication skills.

Evidence of excellence in teaching and pedagogical inquiry can be demonstrated through teaching accomplishments, awards and accolades, presentations at significant conferences, the teaching dossier submitted as part of the application including a strong teaching statement, selected course materials, and course evaluations, as well as strong letters of reference from referees of high standing.

Salary will be commensurate with qualifications and experience.

All qualified candidates are invited to apply through AcademicJobsOnline at <https://academicjobsonline.org/ajol/jobs/16647>. Applicants must submit a cover letter, a current curriculum vitae, a statement of career goals, and a teaching dossier that includes a teaching philosophy statement, course evaluations, and selected course materials. Applicants must also arrange to have at least three letters of recommendation (on letterhead, dated and signed) addressing teaching, uploaded through AcademicJobsOnline

directly by the writers. The letters must be uploaded by the closing date.

All application materials, including reference letters, must be received by November 9, 2020. For enquiries, please contact Julia Martyn, Chair's Assistant, at [julia.martyn@utoronto.ca](mailto:julia.martyn@utoronto.ca).

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons/ persons of colour, women, Indigenous/ Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

## University of Washington

### *Assistant Professor, Associate Professor or Full Professor in the Paul G. Allen School of Computer Science & Engineering*

#### Position Description

The University of Washington's Paul G. Allen School of Computer Science & Engineering invites applications for up to three tenure-track positions in a wide variety of technical areas in both Computer Science and Computer Engineering. Hires will be made at the Assistant (Tenure-track), Associate (Tenure-eligible), or Full (Tenure-eligible) Professor ranks, commensurate with experience and qualifications. The

positions would be full-time, multi-year appointments with 9-month service periods and with an anticipated start date of September 1, 2021. Our school offers a highly collegial and collaborative culture, with broad interdisciplinary research ties across campus. We are leaders both in core computing and computer engineering research, and in research that applies computer science to solve pressing world challenges in medicine and global health, education, accessibility, developing world technology, and others. The Seattle area is particularly attractive given the presence of significant industrial research laboratories, top technology companies, as well as a vibrant technology-driven entrepreneurial community that further enhances the intellectual atmosphere.

We look forward to learning how the applicant's experience or future plans for teaching, research, and service would support our commitment to diversity and inclusion.

The University is building a culturally diverse faculty and staff and strongly encourages applications from women, underrepresented minorities, individuals with disabilities and covered veterans. The University is a first-round awardee of the National Science Foundation's ADVANCE Institutional Transformation Award to increase the advancement of women faculty in science, engineering, and math (see [www.engr.washington.edu/advance](http://www.engr.washington.edu/advance)). Moreover, College of Engineering has consistently had one of the highest percentages of women faculty in the top 50 colleges of engineering (US News and World Report

Undergraduate Rankings). Additionally, the University's Office for Faculty Advancement promotes the hiring, retention, and success of a diverse and inclusive faculty at the University of Washington.

All University of Washington faculty engage in teaching, research, and service.

#### Qualifications

Applicants for tenure-track and tenure-eligible positions must have earned a doctorate (or foreign equivalent) in Computer Science, Computer Engineering, or related field, by the date of appointment.

#### Application Instructions

**To ensure full consideration of your application, please submit all materials no later than November 15, 2020.** Applications will only be accepted via Interfolio. <https://apply.interfolio.com/78278>

Please provide pdf files for the following requested materials: your letter of application, a complete curriculum vitae, statements of research and teaching interests, a diversity statement, and your three most significant publications. You are also asked to provide at least four confidential letters of recommendation.

For any administrative issues or inquiries related to the search, please contact [frc@cs.washington.edu](mailto:frc@cs.washington.edu). For technical issues, please contact Interfolio staff at 877-997-8807 or [help@interfolio.com](mailto:help@interfolio.com).

#### Equal Employment Opportunity Statement

University of Washington is an affirmative action and equal opportunity

employer. All qualified applicants will receive consideration for employment without regard to race, color, creed, religion, national origin, sex, sexual orientation, marital status, pregnancy, genetic information, gender identity or expression, age, disability, or protected veteran status.

#### Commitment to Diversity

The University of Washington is committed to building diversity among its faculty, librarian, staff, and student communities, and articulates that commitment in the UW Diversity Blueprint (<http://www.washington.edu/diversity/diversity-blueprint/>). Additionally, the University's Faculty Code recognizes faculty efforts in research, teaching and/or service that address diversity and equal opportunity as important contributions to a faculty member's academic profile and responsibilities (<https://www.washington.edu/admin/rules/policies/FCG/FCCH24.html#2432>).

## University of Washington

*Research Assistant Professor in the Paul G. Allen School of Computer Science & Engineering*

#### Position Description

The University of Washington's Paul G. Allen School of Computer Science & Engineering invites applications for a non-tenure track Research Assistant Professor position in the fields of Molecular engineering with computation methods

(e.g., ML); DNA nanotechnology; and/or Synthetic biology. The position would be a full-time, multi-year appointment with 12-month service period and with an anticipated start date of September 1, 2021. The initial appointment is for a three-year term.

Our school offers a highly collegial and collaborative culture, with broad interdisciplinary research ties across campus. We are leaders both in core computing and computer engineering research, and in research that applies computer science to solve pressing world challenges in medicine and global health, education, accessibility, developing world technology, and others. The Seattle area is particularly attractive given the presence of significant industrial research laboratories, top technology companies, as well as a vibrant technology-driven entrepreneurial community that further enhances the intellectual atmosphere.

We look forward to learning how the applicant's experience or future plans for research and service would support our commitment to diversity and inclusion. The University is building a culturally diverse faculty and staff and strongly encourages applications from women, underrepresented minorities, individuals with disabilities and covered veterans. The University is a first-round awardee of the National Science Foundation's ADVANCE Institutional Transformation Award to increase the advancement of women faculty in science, engineering, and math (see [www.engr.washington.edu/advance](http://www.engr.washington.edu/advance)). Moreover, College of

Engineering has consistently had one of the highest percentages of women faculty in the top 50 colleges of engineering (US News and World Report Undergraduate Rankings). Additionally, the University's Office for Faculty Advancement promotes the hiring, retention, and success of a diverse and inclusive faculty at the University of Washington.

All University of Washington faculty engage in research, teaching and service.

### Qualifications

Applicants must have earned a doctorate (or foreign equivalent) in Computer Science, Computer Engineering, or related field, by the date of appointment.

### Application Instructions

**To ensure full consideration of your application, please submit all materials no later than November 15, 2020.** Applications will only be accepted via Interfolio. <https://apply.interfolio.com/78349>

Please provide pdf files for the following requested materials: your letter of application, a complete curriculum vitae, statements of research interests, a diversity statement, and your three most significant publications. You may optionally provide a teaching statement, if available. You are also asked to provide at least four confidential letters of recommendation.

For any administrative issues or inquiries related to the search, please contact [frc@cs.washington.edu](mailto:frc@cs.washington.edu). For technical issues, please contact Interfolio staff at 877-997-8807 or [help@interfolio.com](mailto:help@interfolio.com).

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### Commitment to Diversity

The University of Washington is committed to building diversity among its faculty, librarian, staff, and student communities, and articulates that commitment in the UW Diversity Blueprint (<http://www.washington.edu/diversity/diversity-blueprint/>). Additionally, the University's Faculty Code recognizes faculty efforts in research, teaching and/or service that address diversity and equal opportunity as important contributions to a faculty member's academic profile and responsibilities (<https://www.washington.edu/admin/rules/policies/FCG/FCCH24.html#2432>).

## University of Waterloo

*Assistant Professor - Mathematics, Science, or Engineering*

Applications are invited for a tenure-track faculty position at the rank of Assistant Professor, and in special cases Associate or Full Professor, at the Institute for Quantum Computing (IQC) and any department in the Faculties of

Mathematics, Science or Engineering at the University of Waterloo with an anticipated start date of September 1, 2021.

As an employer committed to employment equity and accessibility for persons with disabilities, we encourage applications from members of equity-seeking communities including women, underrepresented minorities and Indigenous persons, persons with disabilities, and persons of all sexual orientations and gender identities/expressions.

Diversity is integral to academic excellence, and as such, the University is committed to attracting and retaining diverse faculty. Based on existing demographics in the Institute for Quantum Computing at the University of Waterloo, priority in hiring will be given to qualified women who self-identify as such in the application process. This initiative is a special program under the Ontario Human Rights Code.

<http://www.ohrc.on.ca/en/part-ii-%E2%80%93-interpretation-and-application/special-programs>

We encourage members of all equity-seeking groups to self-identify within their letter of intent in their application. Disclosure and/or self-identification with an equity-seeking group will not lead to advantageous treatment of a candidate who is not qualified. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will receive priority in the recruitment process.

A PhD and significant evidence of excellence in research in quantum information science and technology and the potential for effective teaching are required. Responsibilities include the supervision of graduate students and teaching at the undergraduate and graduate levels. Based on qualifications, a salary range of \$100,000 to \$155,000 will be considered. Negotiations beyond this salary range will be considered for exceptionally qualified candidates. Effective date of appointment is September 1, 2021. The search is open to all areas of quantum information that connect with the goals and ongoing research at IQC.

IQC is a collaborative research institute at the University of Waterloo focused on quantum information science and technology, ranging from the theory of quantum information to practical applications. At present, IQC has a complement of 32 faculty members, 65 postdoctoral fellows and 150 graduate students from the Faculties of Engineering, Mathematics and Science. Membership in IQC is renewable and comes with research space, a teaching reduction of one course per year, and a stipend. Information about research at IQC can be found at <https://uwaterloo.ca/institute-for-quantum-computing/research> and <https://tqt.uwaterloo.ca>

Full consideration for these positions is assured only for applications received by December 1, 2020. Interested individuals should upload their application via the faculty application form at <https://uwaterloo.ca>.

[ca/institute-for-quantum-computing/available-positions](https://uwaterloo.ca/institute-for-quantum-computing/available-positions) and arrange for three referees to upload letters of reference.

If you have any questions regarding the position, the application process, assessment process, eligibility, or a request for accommodation during the hiring process, please contact the IQC Director at [iqc-dtr@uwaterloo.ca](mailto:iqc-dtr@uwaterloo.ca).

Three reasons to apply:  
<https://uwaterloo.ca/faculty-association/why-waterloo>

## U.S. Naval Academy

### *Faculty Positions in Cyber Science*

The U.S. Naval Academy invites applications for tenure-track faculty positions in the Department of Cyber Science, beginning as early as January 2021 for the Spring semester.

The Cyber Science Department operates the Academy's growing cybersecurity education initiatives, including a rapidly growing, ABET-accredited cyber operations major, and a brand new, state-of-the-art building to support multi-disciplinary cybersecurity education and research.

The requirements of the positions include teaching and developing undergraduate cyber operations courses and academic research. Candidates should have experience in technical areas such as systems security, network security, or SCADA systems.

A Ph.D. or other terminal degree in a cyber technology-relevant field (which includes fields such as Computer Science, Information Technology, Information Science, Computer Security, Computer Engineering, and Electrical Engineering) is required.

For full details and application instructions see:

<https://www.usna.edu/HR0/jobinfo/Tenure-track-Cyber-AY21.php>

## West Virginia University

*Assistant/Associate Professor*

**West Virginia University**, The Benjamin Statler College of Engineering and Mineral Resources (Morgantown, WV) invites applications for a tenure-track

faculty position at the rank of Assistant or Associate Professor in the areas of computer engineering, computer science, and cybersecurity. The appointment shall be in the Lane Department of Computer Science and Electrical Engineering. Specialty areas of interest include but are not limited to cybersecurity, software engineering, networking, computer systems and architecture, theory of computer science, artificial intelligence, machine learning, computer vision, and biometric identification. Eligible candidates must hold an earned Doctorate degree in computer science, computer engineering, or a closely related field, at the time of appointment. A notable record of peer-reviewed publications and other scholarly activities, effective communication skills, and evidence of potential to attract

competitive research funding are required for this position. Candidates for the rank of Associate Professor must have an outstanding record of research, teaching, and service.

For further information regarding this employment opportunity and how to apply, please see [www.jobs.wvu.edu](http://www.jobs.wvu.edu).

West Virginia University is an Equal Opportunity/Affirmative Action Employer and the recipient of an NSF ADVANCE award for gender equity. The University values diversity among its faculty, staff and students, and invites applications from all qualified individuals, including minorities, females, individuals with disabilities, and veterans.

## Williams College

*Tenure Track Faculty Position*

The Department of Computer Science at Williams College invites applications for a tenure-track position at the rank of assistant professor beginning July 1, 2021. In an exceptional case, a more advanced appointment may be considered. The position has a three-year initial term and is open to all areas of computer science. We are especially interested in candidates with strong backgrounds in Machine Learning, Artificial Intelligence, Natural Language Processing, or Computer Graphics, but applicants from all areas are encouraged to apply.

New faculty will join twelve current members of the department in supporting a thriving and diverse undergraduate



## VMware Systems Research Award: Recognizing Excellence in Computer Science Systems Research

This annual **\$125,000 USD** award is part of VMware's commitment to support computer science research and development worldwide.

Submit nominations by October 23, 2020

**LEARN MORE**

computer science major. Candidates should have a commitment to excellence in teaching and research, and should, by September 2021, possess a Ph.D. in computer science or a closely related discipline. Successful candidates will teach a total of three courses during the academic year, along with associated labs.

The Department of Computer Science offers a congenial working environment,

an excellent and diverse student body, and state-of-the-art facilities. Many opportunities exist for collaboration across disciplines. For more information about the department, please visit <http://www.cs.williams.edu>.

Applications should include a cover letter, curriculum vitae, teaching and research statements, and three letters of reference, at least one of which

speaks to the candidate's promise as a teacher. The application materials should also address how the candidate's teaching, scholarship, mentorship and/or community service might support Williams' commitment to diversity and inclusion. Application materials must be submitted electronically through Interfolio at <http://apply.interfolio.com/78066>. Materials may be addressed

## YaleNUS College

### Open rank tenured or tenure track positions in Data Science

The College invites applications for 2 open rank tenure-track or tenured positions in Data Science. Preferred fields of specialization are Bayesian Statistics, Computational Statistics, High dimensional Data and Machine Learning. However, applicants working in other areas are welcome to apply. Applicants should have a relevant PhD and demonstrate an outstanding track record for their career stage. Research achievements should include publications in leading peer-reviewed journals or conferences commensurate with career stage as well as a demonstrated potential to secure research funding. A clear ability and passion for undergraduate education is essential. The incoming faculty member would join a committed team dedicated to the development and teaching of the Mathematical, Computational and Statistical Sciences Major (see <https://mcs.yale-nus.edu.sg/>) and Yale-NUS's flagship Common Curriculum (see <http://www.yale-nus.edu.sg/curriculum/common-curriculum>).

The appointee will be expected to begin duties in time for the 2021-2022 academic year, which begins in August 2021. Faculty receive salaries that are on par with the most prestigious liberal arts colleges in the world, a substantial start-up grant as well as a yearly travel and research allowance, and are able to access additional funding from Yale-NUS, National University of Singapore, and Singapore's Ministry of Education. Faculty are entitled to a 5-month sabbatical for every three years spent in the College. Some existing Faculty have joint appointments with relevant NUS Departments, and this can be explored for new hires on a case-by-case basis. Most faculty qualify for highly subsidized faculty housing, either on campus or a short walk away. Yale-NUS College is located in Singapore, a multicultural city of six million that is known for its high quality of life and sits at the heart of a vibrant region.

#### Application Procedure

Applications should consist of the following: a cover letter explaining why the position at Yale-NUS is of interest; a full curriculum vitae, including a complete list of publications; statements on research interests, teaching experience, and teaching philosophy, including how these might fit with the College's particular mission and curriculum; for tenure-track positions, three reference letters (to be submitted by the reference writers via <https://academicjobsonline.org/ajo/YaleNUS>) or for tenured positions, names and contact information of three academic referees; and other relevant documents. The teaching statement should indicate the applicant's commitment to education and evidence of engagement. Applications should be submitted via <https://academicjobsonline.org/ajo/YaleNUS>. Review of applications begins 1 October 2020 and continues until the positions are filled. For general enquiries, please email: [Enquiry\\_ScienceDiv@yale-nus.edu.sg](mailto:Enquiry_ScienceDiv@yale-nus.edu.sg). For academic enquiries, please email the Head of Studies (Mathematical, Computational and Statistical Sciences), Professor Maria De Iorio: [maria@yale-nus.edu.sg](mailto:maria@yale-nus.edu.sg)

#### Equal Opportunity Employer

Yale-NUS College achieves excellence through the diversity of its students, faculty, and staff and by embracing inclusivity, equity, and global engagement. We encourage applications by diverse individuals with a demonstrated commitment to continually support these values. For more information about the College, please visit <https://www.yale-nus.edu.sg>

#### Personal Data Protection Act (PDPA)

Candidates should understand that by sharing information with Yale-NUS, they authorise the College to use their personal data for the purposes of this application. The College will not use their data for other purposes and ensure that their data remains secure and confidential.

to Professor Stephen Freund, Chair,  
Department of Computer Science.

Completed applications received  
by November 16 will receive full  
consideration, and review of applications  
will continue until the position is  
filled. Please direct all correspondence  
to [hiring@cs.williams.edu](mailto: hiring@cs.williams.edu). All offers  
of employment are contingent upon

completion of a background check as  
described here <https://faculty.williams.edu/prospective-faculty/background-check-policy/>.

Williams College is a coeducational  
liberal arts institution located in the  
Berkshire Hills of western Massachusetts.  
The college has built its reputation on  
outstanding teaching and scholarship

and on the academic excellence of its  
approximately 2,000 students. Please visit  
the Williams College website (<http://www.williams.edu>). Beyond meeting fully its  
legal obligations for non-discrimination,  
Williams College is committed to building  
a diverse and inclusive community where  
members from all backgrounds can live,  
learn, and thrive.

## YaleNUS College

### Tenured or Tenure-track (Open-rank) Faculty Positions in Computer Science

The College invites applications for one assistant professor and one open rank, tenure-track or tenured faculty position in Computer Science. We are interested in all areas of Computer Science that include programming and systems. Applicants should have a relevant PhD and demonstrate an outstanding track record for their career stage. Research achievements should include publications in leading peer-reviewed journals or conferences commensurate with career stage as well as a demonstrated potential to secure research funding. A clear ability and passion for undergraduate education is essential. The incoming faculty member would join a committed team dedicated to the development and teaching of the Mathematics, Computation, and Statistics major (see <https://mcs.yale-nus.edu.sg>) and Yale-NUS's flagship Common Curriculum (see <http://www.yale-nus.edu.sg/curriculum/common-curriculum>).

The appointee will be expected to begin duties in time for the 2021-2022 academic year, which begins in August 2021. Faculty receive internationally competitive salaries and start-up grants as well as a yearly travel and research allowance. They are able to access additional funding from Yale-NUS, the National University of Singapore, and Singapore's Ministry of Education. Most faculty qualify for highly subsidized faculty housing. Yale-NUS College is located in Singapore, a multicultural city of six million at the heart of a vibrant region.

#### Application Procedure

Applications should consist of the following: a cover letter explaining why the position at Yale-NUS is of interest; a full curriculum vitae, including a complete list of publications; statements on research interests, teaching experience, and teaching philosophy, including how these might fit with the College's particular mission and curriculum; three reference letters (to be submitted by the reference writers via <https://academicjobsonline.org/ajo/YaleNUS>); and other relevant documents. Applications should be submitted via <https://academicjobsonline.org/ajo/YaleNUS> by Sunday 15 November 2020. For general enquiries, please email: [enquiry\\_sciencediv@yale-nus.edu.sg](mailto:enquiry_sciencediv@yale-nus.edu.sg)

#### Equal Opportunity Employer

Yale-NUS College achieves excellence through the diversity of its students, faculty, and staff and by embracing inclusivity, equity, and global engagement. We encourage applications by diverse individuals with a demonstrated commitment to these values. For more information about the College, please visit <https://www.yale-nus.edu.sg>

#### Personal Data Protection Act (PDPA)

Candidates should understand that by sharing information with Yale-NUS, they authorise the College to use their personal data for the purposes of this application. The College will not use their data for other purposes and ensure that their data remains secure and confidential.

# Professional Opportunities

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