

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 Update: CRA Receives NSF Funding for LEVEL UP AI Initiative

CRA, in collaboration with New Mexico State University (NMSU), has launched the LEVEL UP AI initiative with NSF support. The project aims to boost capacity and diversity in AI education by expanding curricula, improving infrastructure, and promoting inclusivity. It aligns with national efforts like the National AI Research Resource (NAIRR) and includes virtual roundtables and workshops to gather insights from the community.

[Read more on page 2](#)

2024-2025 Outstanding Undergraduate Researchers Award - Nominations Open!

CRA is now accepting nominations for the 2024-2025 Undergraduate Researcher Awards. Faculty members can nominate up to four students (two for non-PhD-granting departments) by October 15, 2024, at 9:00 pm ET. Award recipients will receive up to \$1,500 in financial assistance to attend a research conference. Learn more and nominate a student today!

[Read more on page 4](#)

CRA Now Accepting Member Submissions for 2024 Academic Member Book

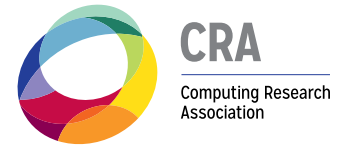
CRA is now accepting submissions for the 2024 Academic Member Book! Academic member units can submit a one-page PDF highlighting their faculty and students by 5:00 pm ET on October 11, 2024. This annual publication is shared across North America, helping students explore the next steps in their academic journey.

[Read more on page 6](#)

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CRA Update: CRA Receives NSF Funding for LEVEL UP AI Initiative



By Matt Hazenbush, Director of Communications

The Computing Research Association (CRA), in collaboration with New Mexico State University (NMSU), has launched the LEVEL UP AI initiative, a significant project aimed at increasing both the capacity and diversity in artificial intelligence (AI) education. This effort is supported by a grant from the National Science Foundation (NSF) as part of its broader [EducateAI initiative](#), which seeks to build an AI-ready workforce and ensure equitable access to AI education across the U.S.

As the demand for AI skills continues to rise, LEVEL UP AI is designed to bring together the computing research community to craft strategies that expand AI curricula, enhance educational infrastructure, and promote inclusive practices. The initiative directly aligns with national efforts, such as the [National AI Research Resource](#) (NAIRR), which aims to democratize access to AI resources for educators and learners alike.

“At CRA, we recognize the urgent need to increase the country’s capacity for AI education,” said Tracy Camp, Executive Director and CEO of CRA. “The LEVEL UP AI initiative is our strategy for uniting the computing community to address this critical challenge. By developing inclusive and high-quality AI education strategies, we will not only meet the current needs but also prepare for the future of AI.”

The LEVEL UP AI project builds on the success of CRA’s previous [LEVEL UP initiative](#), which was also supported by NSF and focused on creating a unified vision for inclusive undergraduate computing education. This new phase will involve a series of virtual roundtables and in-person workshops designed to gather insights from a wide range of stakeholders, culminating in a comprehensive report. The report will serve as a roadmap for expanding and diversifying AI education across the U.S.

Enrico Pontelli, Dean of Arts and Sciences and Regents Professor at NMSU, added, “NMSU is excited to collaborate with CRA on the LEVEL UP AI initiative. As AI continues to reshape industries and society, it’s crucial that our educational systems evolve to provide all students with the opportunity to contribute to and benefit from these advancements. LEVEL UP AI is a significant step in that direction, and I’m proud to be part of this effort to enhance and diversify AI education.”

The community-driven nature of the project is central to its success. Mary Lou Maher, Director of the [Computing Community Consortium](#) (CCC) at CRA, emphasized, “LEVEL UP AI is about bringing together diverse perspectives to create a shared vision for AI education. Through a series of virtual roundtables and in-person workshops, we will harness the collective insights of our participants to craft strategies that expand capacity and enhance inclusivity in AI education. The success of this initiative will set a new standard for how we approach AI education nationwide.”

Key collaborators in this initiative include major computing organizations such as the [Association for the Advancement of Artificial Intelligence](#) (AAAI), the [Association for Computing Machinery](#) (ACM), and the [IEEE Computer Society](#) (IEEE-CS). The project also leverages the expertise of several [NSF Broadening Participation in Computing Alliances](#), including [AccessComputing](#), [CAHSI](#), [CIC](#), [CRA-WP](#), [ECEP](#), [iAAMCS](#), [LEAP](#), [NCWIT](#), [SRC](#), and [STARS](#).

A National Call to Action

The new LEVEL UP AI project, a [Computing in Undergraduate Education](#) Mobilizing award, is dedicated to helping faculty and departments develop robust proposals that strengthen capacity for inclusive AI education while leveraging the resources of the NAIRR Pilot.

We invite the computing research community to collaborate with us in crafting proposals that complement and coordinate with national efforts to advance innovation and inclusion in undergraduate computing education. CRA is well-positioned to assist with community building, logistical support, and communications to strengthen your proposed project.

To explore potential collaborations, please contact us at ceo@cra.org.

5 Reasons to Attend the 2025 CRA-WP Grad Cohort Workshops



By Lauren Lashlee, Senior Program Associate, CRA-WP, and Matt Hazenbush, Director of Communications

The 2025 CRA-WP [Grad Cohort for Women](#) and [Grad Cohort for IDEALS](#) (Inclusion, Diversity, Equity, Accessibility, and Leadership Skills) Workshops will take place in Denver, CO, from April 3-5, 2025. Read more about [Denver's gorgeous springtime weather](#) and [accessibility options and services](#).

The CRA-WP Grad Cohort workshops provide invaluable mentoring, networking, and professional development for computing graduate students, particularly those from underrepresented groups. Participants consistently report increased confidence, a stronger sense of community, and the development of essential skills that propel them toward successful research careers in industry, academia, and government labs.

There are two ways to secure spots:

- **Students** can apply directly through the application forms for the two workshops. Please apply only to one workshop. Applications will be accepted through November 15.
 - » Grad Cohort for Women: [Student Application | Eligibility Details](#)
 - » Grad Cohort for IDEALS: [Student Application | Eligibility Details](#)
- **Academic units, schools, or departments** can sponsor up to four students to ensure their participation via the [departmental sponsorship form](#).

With limited spots, now is the time to act!

Are you an academic leader or faculty member with students who could benefit from attending? Share the application link for the workshop that best fits them, along with these five compelling reasons to apply.

Why Computing Graduate Students Should Attend the Grad Cohort Workshops

1. Connect with a Diverse Group of Mentors Who Understand Your Journey

Meet senior researchers and experts who have been where you are. They'll share tailored advice and help you navigate graduate school and beyond.

2. Build a Community That Supports You

Surround yourself with peers who share your experiences and challenges. You'll walk away with a network that'll have your back throughout your career.

3. Strengthen Your Leadership and Career Skills

Get equipped with practical strategies for research, leadership, and career planning. You'll gain the confidence to take the next steps in your career.

4. Discover New Career Opportunities

The people you meet and the skills you develop here can lead to internships, collaborations, and other opportunities that can shape your future.

5. Boost Your Confidence in Research

Past attendees report feeling more prepared and confident in their research abilities. This is your chance to push your academic and career potential further.



Workshops (continued)

Why Sponsoring is a Smart Investment for Companies and Organizations

Sponsoring the CRA-WP Grad Cohort Workshops is an excellent way for companies, nonprofits, and government organizations to connect with the next generation of computing leaders. In addition to supporting an impactful initiative, sponsors gain exclusive access to top talent through networking events and the Grad Cohort applicant directory.

Do you have contacts at a major employer of computing PhD talent who may be interested in supporting and connecting with talented students?

Forward them our [sponsorship page](#) and ask them to make an impactful investment in the future of computing.

Visit our [Sponsorship Prospectus](#) to learn more about how organizations can get involved.



2024-2025 Outstanding Undergraduate Researchers Award – Nominations Open!



By Julia Sepulveda, Senior Program Associate, CRA-E

The Computing Research Association (CRA) aims to champion a diverse, welcoming, equitable, and socially responsible computing research community. As such, every year we celebrate and recognize undergraduate researchers who demonstrate outstanding potential through the [Undergraduate Researcher Awards](#).

The Undergraduate Researcher Awards will accept nominations through **Tuesday, October 15, 2024 at 9:00 pm ET**. Nominations must be submitted by a faculty member. PhD-granting departments may nominate up to four students, and non-PhD-granting departments may nominate up to two students. To be eligible for the award, undergraduate students must be enrolled in an accredited North American college or university for the fall of 2024.

Multiple CRA Outstanding Undergraduate Researcher Awards will be granted, with additional nominees designated as runners-up, finalists, and honorable mentions. Award recipients will receive financial assistance of up to \$1,500 to attend a research conference of their choice.

Nominate a Student

To learn more about the award, please visit the [CRA Outstanding Undergraduate Researchers Award](#) webpage.

Six Leading Computing Organizations Call on Congress to Fully Fund the CHIPS and Science Act, Bringing Computing Research Advocacy to Capitol Hill



By Matt Hazenbush, Director of Communications

On September 12, 2024, computing researchers participating in CRA's annual **Congressional Visit Day** took to Capitol Hill armed with a crucial message: fully fund the CHIPS and Science Act.

This year's visit day coincided with the release of a letter from six leading computing organizations – the **Association for the Advancement of Artificial Intelligence (AAAI)**, the **Association for Computing Machinery (ACM)**, the **Computing Research Association (CRA)**, **IEEE-USA**, the **Society for Industrial and Applied Mathematics (SIAM)**, and **USENIX** – urging Congress to fulfill the research funding levels authorized in the 2022 legislation.

[Read the Letter](#)

During their meetings with Congressional offices, participants presented the letter, emphasizing the urgent need to support research agencies such as the National Science Foundation (NSF), the Department of Energy's (DOE) Office of Science, and the National Institute of Standards and Technology (NIST). They highlighted how federal investments in computing research are essential to maintaining U.S. leadership in critical fields such as artificial intelligence, quantum computing, and high-performance computing.

Tracy Camp, CRA's Executive Director and CEO, underscored the importance of these investments in CRA's statement accompanying the letter:

"The nation's leaders need to rise to this challenge. If the United States wants to be a world leader in artificial intelligence, quantum computing, high performance computing, and many other scientific fields, fulfilling the promises made in the CHIPS and Science Act is a vital step toward doing that."

Participants of CRA's Congressional Visit Day, held from September 11-12, received expert training on how to effectively engage with Congressional offices and make the case for computing research. On the evening of September 11, they were briefed on the letter and prepared to discuss it during their meetings the following day. This training included strategies for presenting the local and national importance of computing research to members of Congress and their staff.

Nancy Amato, CRA's Chair of the Board of Directors, expressed the long-term significance of these meetings:

"The nation is in serious danger of falling behind our competitor nations in several research fields, especially in the computing and IT fields. Without these vital investments in research, the United States runs the risk of falling behind and becoming a second-rate scientific power in the world."





CRA

Computing Research Association
Government Affairs

CHIPS and Science Act *(continued)*

The participants' advocacy efforts reinforced the critical role of the NSF, which provides **78 percent** of all federal support for fundamental computing research at U.S. universities. The conversations in these meetings highlighted how such investments fuel breakthroughs in artificial intelligence, quantum computing, and a range of other fields, while also preparing the next generation of computing researchers.

CRA's Congressional Visit Day is held every September and provides an opportunity for computing researchers to become advocates for federally supported computing research. Participants engage with policymakers to highlight the importance of continued investment in computing research and its role in driving innovation, job creation, and national security.

For more information on CRA's Congressional Visit Day and how to participate in future events, visit the [Congressional Visit Day webpage on cra.org](#).

CRA Now Accepting Member Submissions for 2024 Academic Member Book



CRA

Computing Research Association

By Elora Daniels, Communications Associate

With September underway and students back on campus, it is now time to celebrate your academic units and share your highlights in the 2024 CRA Academic Member Book!

A benefit of CRA Academic Unit Membership is being featured in our annual Academic Member Book, which is then shared around North America as a resource for students looking at the next step in their academic journey. If you are not a member of CRA and would like to be, please learn more about [CRA membership](#) or email members@cra.org.

For this yearly publication, academic member units are asked to submit a one-page PDF highlighting their department for the upcoming academic year. Please fill out [this form](#) to submit your unit's content.

All content must be submitted by 5:00 pm ET on October 11.

View the [2023 member book](#) for guidance and inspiration.

[Submit Your One-Pager](#)

Questions about the Member Book can be sent to edaniels@cra.org. We are looking forward to your submissions!

Call for Participation: Grand Challenges for the Convergence of Computational and Citizen Science Research



CCC

Computing Community Consortium
Catalyst

By Petruce Jean-Charles, Communications Associate, CCC

The Community Computing Consortium (CCC) is engaging in a new visioning activity to craft a research agenda focused on how human-computer collaborations can solve some of the most pressing scientific problems through citizen science, crowdsourcing, and community-engaged science.

We are excited to announce a visioning workshop titled “**Grand Challenges for the Convergence of Computational and Citizen Science Research**.” The workshop will take place in Washington, DC, from April 8 to 9, 2025, with an opening dinner on April 7.

The workshop will cover several key focus areas including Human-Computer Teaming, Computational Citizen Science, Citizen Science Data Cyberinfrastructure, the development of affordable sensors for citizen science, and the ethical and social implications of integrating AI with citizen science. The outcomes from this workshop are expected to guide future research agendas and influence government and federal institutions.

Interested participants should apply by October 4. For in-person attendance, applicants need to submit an extended abstract (500-1,000 words) outlining their current research or significant questions related to the workshop’s focus areas. While abstracts are necessary for in-person participation, they are not required for virtual sessions. The workshop aims to achieve broad representation, considering factors like demographics, expertise, career stage, and geography.

For more information on traveling and application requirements, visit our [Open Calls for Participation page](#). Apply [here](#) for the in-person workshop and virtual discussions.

[Apply Now](#)

We look forward to your submission and hope to see you in Washington, DC in April 2025.

UR2PhD Refreshes Its Digital Presence with a New Website and LinkedIn Showcase Page



CRA-E

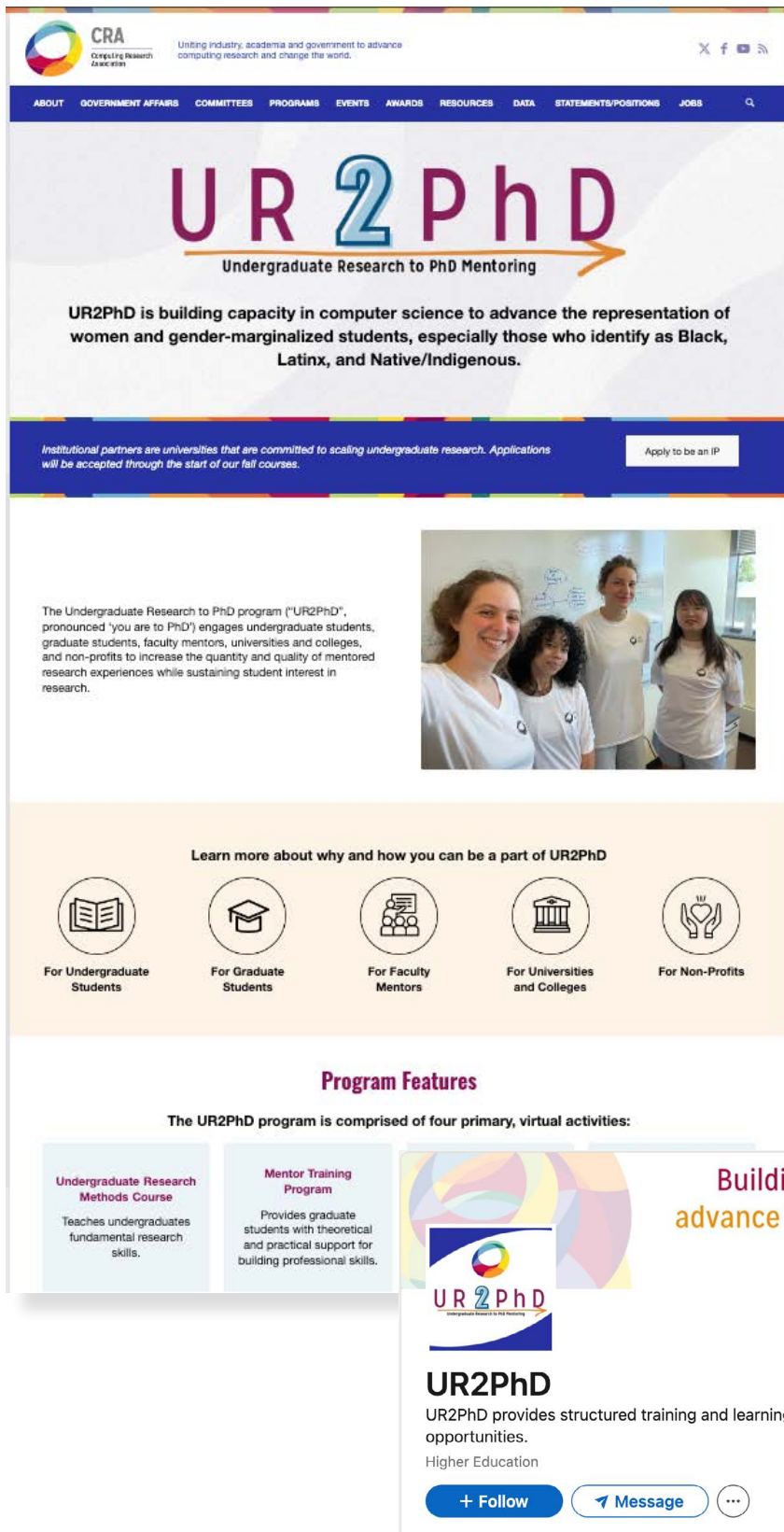
Computing Research Association
Education

By Matt Hazenbush, Director of Communications

The Computing Research Association’s UR2PhD program recently launched a redesigned website and a new LinkedIn Showcase Page, marking a significant step forward in better communicating the program’s mission to expand opportunities for underrepresented groups in computing.

The new UR2PhD website, located at cra.org/ur2phd, offers an enhanced user experience, providing easy access to information and resources for students, faculty mentors, and institutional partners. This redesign was driven by a need to streamline navigation and make essential program details more accessible for all users.

UR2PhD Digital Presence (continued)



The screenshot shows the UR2PhD website homepage. At the top is the CRA logo with the tagline "Uniting industry, academia and government to advance computing research and change the world." Below this is a navigation menu with links for ABOUT, GOVERNMENT AFFAIRS, COMMITTEES, PROGRAMS, EVENTS, AWARDS, RESOURCES, DATA, STATEMENTS/POSITIONS, and JOBS. The main header features the "UR2PhD" logo in large, colorful letters, with "Undergraduate Research to PhD Mentoring" written below it. A central text block states: "UR2PhD is building capacity in computer science to advance the representation of women and gender-marginalized students, especially those who identify as Black, Latinx, and Native/Indigenous." Below this is a blue banner with the text: "Institutional partners are universities that are committed to scaling undergraduate research. Applications will be accepted through the start of our fall courses." and a button that says "Apply to be an IP".

The main content area includes a photograph of four young women in white t-shirts standing together. To the left of the photo is a text block: "The Undergraduate Research to PhD program ('UR2PhD', pronounced 'you are to PhD') engages undergraduate students, graduate students, faculty mentors, universities and colleges, and non-profits to increase the quantity and quality of mentored research experiences while sustaining student interest in research."

Below the photo is a section titled "Learn more about why and how you can be a part of UR2PhD" with five icons and corresponding text: "For Undergraduate Students" (book icon), "For Graduate Students" (grad cap icon), "For Faculty Mentors" (group of people icon), "For Universities and Colleges" (classroom icon), and "For Non-Profits" (hands holding a heart icon).

The bottom section is titled "Program Features" and states "The UR2PhD program is comprised of four primary, virtual activities:". It lists two activities: "Undergraduate Research Methods Course" (Teaches undergraduates fundamental research skills) and "Mentor Training Program" (Provides graduate students with theoretical and practical support for building professional skills).

At the bottom of the screenshot is a LinkedIn-style card for UR2PhD. It features the UR2PhD logo and the text: "Building capacity in computer science to advance the representation of women and gender-marginalized students". Below this is the text: "UR2PhD provides structured training and learning opportunities to increase undergraduate research opportunities." and "Higher Education". At the bottom of the card are buttons for "+ Follow", "Message", and a menu icon.

Erik Russell, CRA's Director of Educational Initiatives, explains the thinking behind the redesign: "The UR2PhD leaders wanted a website that better serves the needs of our key audiences – students, mentors, and institutions. The new site makes it easier for students to find research opportunities and for mentors to understand the support UR2PhD offers. This update will allow us to better engage our audience while keeping our core mission front and center."

The website features dedicated pages for undergraduate and graduate students, faculty mentors, universities and colleges, and nonprofit partners, ensuring that each group can quickly find relevant information and resources. It also highlights the program's core offerings, including the Undergraduate Research Methods Course, Research Engagement Workshops, and the Graduate School Application Workshops.

The launch of the new [UR2PhD LinkedIn Showcase Page](#) complements this website update by providing a dynamic platform to share program updates, upcoming engagement opportunities, and success stories. The LinkedIn page will offer followers a chance to stay informed about the latest program developments, deadlines for participation, and upcoming events, including research and application workshops.



UR2PhD Digital Presence *(continued)*

Russell adds, “Our new LinkedIn Showcase Page will be a vital tool for connecting with our community. Whether you’re an undergraduate student looking for research opportunities or a graduate mentor wanting to improve your mentorship skills, this page is the place to learn about our offerings, receive timely updates, and see the real-world impact UR2PhD is having on students and mentors alike.”

By aligning its website and LinkedIn presence, UR2PhD aims to create a cohesive digital experience that engages current and prospective students, mentors, and institutional partners. Visitors to the new website can expect an intuitive interface, clear pathways to resources, and an updated design that reflects the program’s commitment to fostering diversity in computing research.

Follow the [UR2PhD LinkedIn Showcase Page](#) to stay updated on future opportunities and visit the new website at cra.org/ur2phd to explore what UR2PhD has to offer.

Research Illustrates *HOW* Faculty Advisors are Critical to PhD Student Outcomes



By Dr. Kari George, University of Illinois Urbana-Champaign, and Dr. Kaitlin Newhouse, North Carolina State University

Motivated by persistent equity gaps in computing degree attainment, a [recently published article](#) from Drs. Kari George and Kaitlin Newhouse contributes new evidence to understand factors that may contribute to doctoral attrition or persistence. Most notably, this study elucidates how faculty advisors influence students’ experiences and educational outcomes.

Examination of Psychosocial Variables

The paper describes prior literature on theories of doctoral student progress, attrition, the importance of faculty advisors, and more recent research on psychosocial attributes. Using data from the 2018 [CERP Graduate Data Buddies Survey](#), George and Newhouse proposed and tested a conceptual framework for understanding CS PhD student consideration of departure. Research has affirmed how educational experiences and interactions with others, especially faculty advisors, may influence students’ psychosocial attributes, and as a result, may mediate students’ persistence or attrition. Accordingly, this study tests the relationships between students’ satisfaction with their faculty advisor and their perceptions of the CS department, and their influence on relevant and disciplinary specific psychosocial attributes, including:

- Researcher self-efficacy - a measure of students’ confidence in various research activities (e.g., publishing, communicating with others in the field, becoming an expert)
- Computing identity - the extent to which students see themselves as a computer scientist
- Sense of belonging in computing - the extent to which students feel like they belong in computing
- Feeling disappointed in your accomplishments - the extent to which students felt they should have accomplished more relative to their expectations of themselves or to their perceptions of other students.

PhD Student Outcomes *(continued)*

Findings

More than one-third (35%) of students considered leaving their doctoral programs, with significantly more women than men considering departure - a clear indication of the threats to broadening participation efforts. Findings elucidated the importance of psychosocial factors such as sense of belonging, researcher self-efficacy, perceptions of the departmental community, and the role of faculty advisors in reducing doctoral students' consideration of departure. Specifically, students who rated their sense of belonging and researcher self-efficacy higher were significantly less likely to consider departure, with researcher self-efficacy having the strongest direct relationship to consideration of departure than any other variable. When students reported a greater degree of disappointment in their accomplishments, they were more likely to consider leaving. Important gender and racial/ethnic differences were also found, which shed light on challenges to BPC efforts.

Looking at the environments and interactions with others, findings indicated that more positive perceptions of the departmental community and greater satisfaction with their advisor reduced students' thoughts of leaving and served as a protective factor with other variables. For instance, students who reported greater satisfaction with their advisor had a greater sense of community in the department, greater researcher self-efficacy, and decreased disappointments in their accomplishments - all of which reduced their consideration of departure.

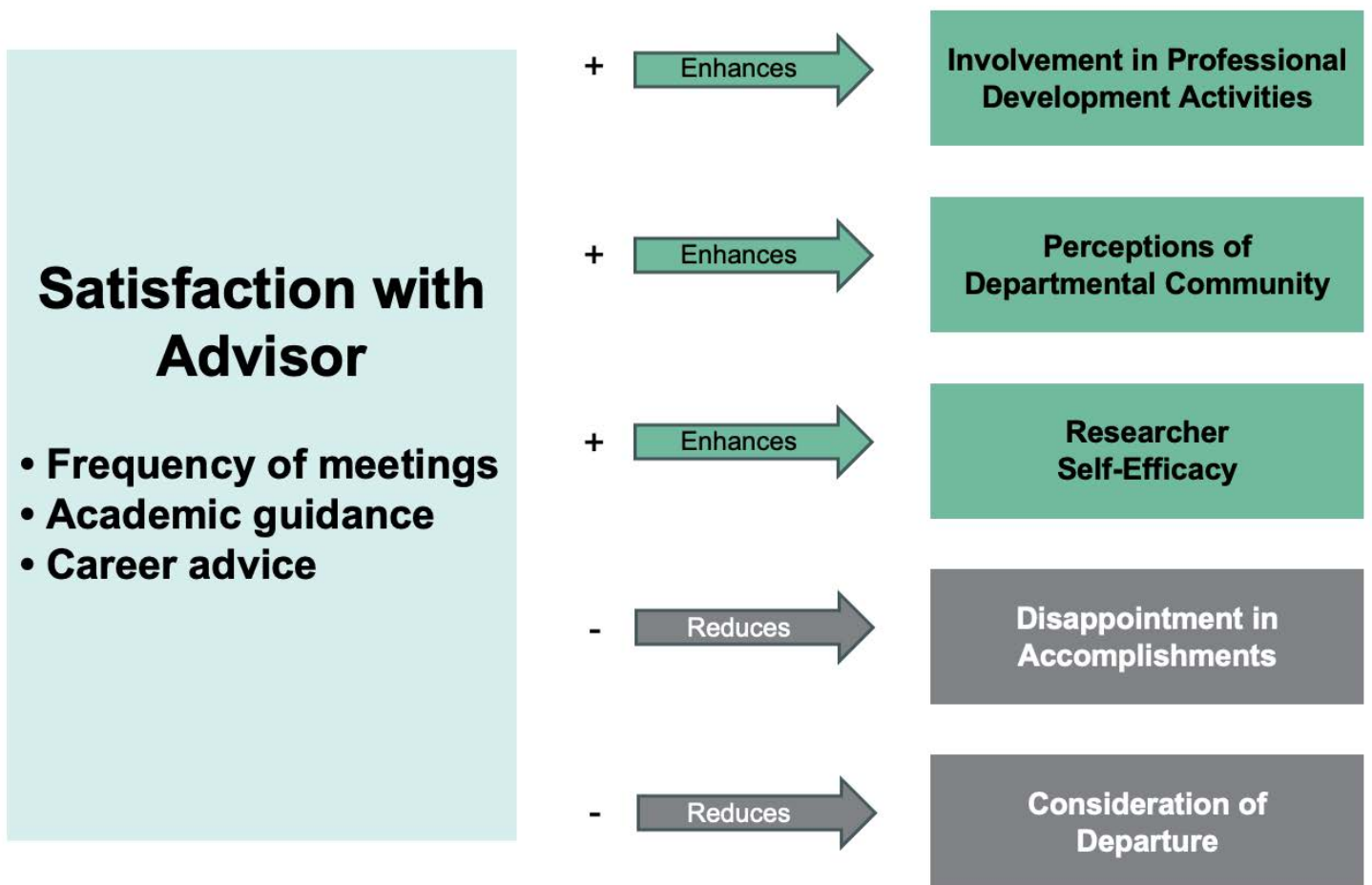


Figure 1: An excerpt of a framework of computing doctoral students' consideration of departure, highlighting the key role of faculty advisors in shaping students' experiences, perceptions, and outcomes



PhD Student Outcomes *(continued)*

This study illuminates *how* advisors play a role in student outcomes well before students actually decide to leave their programs. Positive relationships and satisfaction with their advisor are positively associated with students' skills, engagement, and their self-perceptions. The research suggests advisors are important because the student-advisor relationship influences what students *do*, how students *feel* in the computing community, *how* students *see themselves*, and ultimately, whether or not they even think about leaving their programs.

Implications

The paper discusses several implications for policy and practice. Given the important findings about the role of faculty, it is imperative that departments and faculty focus on cultivating positive relationships with students and engage in quality advising and mentoring practices, such as those outlined in the [Equity-Minded Mentorship toolkit](#). Departments should also intentionally foster a sense of community in the department and work toward meaningfully cultivating healthier research teams and cultures. By making intentional investments in the people and relationships across our computing departments, faculty and departmental leaders may work to address inequities in CS doctoral degree attainment.

Citation: George, K. L. & Newhouse, K. N. S. (2024). Updating our understanding of doctoral student persistence: Revising models using structural equation modeling to examine consideration of departure in computing disciplines. *Research in Higher Education*. <https://doi.org/10.1007/s11162-024-09807-5>

Kari George, Ph.D. is a postdoctoral fellow at the University of Illinois Urbana-Champaign. Her research examines computing environments, organizational change, student-faculty interactions, and factors that shape students' educational and career trajectories. Through research, advocacy, and service, she seeks to influence organizational dynamics and change to broaden participation in computing.

Kaitlin Newhouse, Ph.D. manages a wide variety of research projects aimed at improving [community college campus climate](#) and student outcomes. At the Belk Center at North Carolina State University, Kaitlin leads the [PACE Climate Survey](#) team and other research and evaluation efforts.

This Research Highlight was brought to you by the CRA Center for Evaluating the Research Pipeline (CERP). CERP provides social science research and comparative evaluation for the computing community, made possible through U.S. National Science Foundation (NSF) awards (1821136, 2036717, and 2335072), sub-awards and contracts, and direct CRA contributions. 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 NSF or the CRA.

Subscribe to the CERP newsletter [here](#). Volunteer for Data Buddies by signing up [here](#).

Peter Harsha Receives 2024 Service to CRA Award

*By Matt Hazenbush,
Director of Communications*

The Computing Research Association (CRA) is delighted to announce that **Peter Harsha**, CRA's Chief Operating Officer and Senior Director of Government Affairs, has been honored with the **2024 Service to CRA Award**. This prestigious award recognizes Peter's more than 20 years of dedicated service to the organization, during which he has significantly shaped CRA's influence on computing research policy.

Peter joined CRA in 2001 and has since been instrumental in improving public and policymaker understanding of computing research, as well as enhancing the computing community's engagement with policy issues. His leadership and commitment have ensured that CRA remains a vital advocate for computing research in Washington. Over the years, Peter has taken on several challenging roles within CRA, including serving as Interim Executive Director and leading critical audit initiatives, all of which have contributed to the association's success and growth.

"Peter's unwavering dedication and impactful leadership over the past two decades have been instrumental in shaping CRA's role in the computing research community," said Nancy Amato, Chair of the CRA Board of Directors. "His efforts have not only strengthened our influence in Washington but have also ensured that the voices of computing researchers are heard and valued. We are incredibly fortunate to have had Peter's guidance and commitment throughout the years, and this award is a testament to his exceptional service to CRA."

At the **2024 CRA Conference at Snowbird**, Peter was presented with the Service to CRA Award in recognition of his remarkable contributions. During the conference, Peter also delivered an engaging dinner talk titled "Making a Federal Case for Computing," where he shared insights into the importance of federal engagement in advancing computing research.

For more details on the Service to CRA Award and to see the full list of past recipients, please visit the [Service to CRA awards page](#). For more on the 2024 CRA Conference at Snowbird, check out our [event recap](#) from last month's CRN and view [our full album of event photos on Flickr](#).



Peter Harsha, CRA COO and Senior Director of Government Affairs (center), receives the 2024 Service to CRA Award from Tracy Camp, CRA Executive Director and CEO (left), and Nancy Amato, Chair of the CRA Board of Directors (right).

5 Ways to Build Resilience to Disinformation

By Petruce Jean-Charles, Communications Associate, CCC

In 2020, the Computing Community Consortium (CCC) published the quad paper “An Agenda for Disinformation Research,” where seven researchers came together to share the urgency of investing in fundamental research and interventions to meet the disinformation challenge.

In today’s digital landscape, misleading information is widespread and causing real-world harms. Advanced AI-powered detection methods are now essential, given the evolving manipulative tactics like deep fakes, synthesized text, and coordinated disinformation campaigns. Yet, detecting fake information is just the beginning; it’s equally crucial to understand its impact across diverse contexts and develop more resilience in society to misleading and false information.

To meet the disinformation challenge, we need investments in fundamental research as well as interventions that knit together the social and the technical. Below are a few focus areas outlined in the quad paper.

Impact Measurement and Analysis

Understanding the nuanced impact of disinformation across diverse cultural and geographic contexts requires sophisticated measurement tools. Formal statistical causal inference techniques are necessary to analyze the effects on beliefs, social norms, and technological structures like algorithms and social networks.

Advanced Detection Technologies

With the evolution of disinformation tactics, there’s a critical need for advanced AI-driven detection methods to combat the increase of manipulated media, coordinated misinformation campaigns, and emerging deceptive techniques like deepfakes and synthesized text.

Common Data Infrastructure

Establishing a collaborative research infrastructure is crucial for accessing data ethically from technology platforms. This infrastructure should ensure user privacy protection while facilitating cross-platform analysis through standardized Application Programming Interfaces (APIs) and transparent administrative rules.

Ethical Guidelines and Standards

As research digs into real-world data, strict ethical standards must guide the collection and analysis processes. Policymakers should update existing ethical frameworks, like the 1978 Belmont Report, to address contemporary challenges in studying disinformation while ensuring transparency, fairness, and privacy protection.

Educational and Training Initiatives

Addressing both the supply and demand sides of disinformation requires broad educational efforts. People need to be equipped with fundamental knowledge about the modern information environment and critical thinking skills. Also, future computing professionals should undergo training that emphasizes not only technical excellence but also applied ethics, preparing them to navigate ethical challenges in their work effectively.

With better understanding, we can build resilience against disinformation. Read the full paper [here](#).

CCC Responds to the NITRD Request for Information on Digital Twins Research and Development



By Catherine Gill, Program Associate, CCC

Envisioning a future of digital twins leads to near limitless possibilities. Researchers predict digital twins will become increasingly personalized, with every individual having access to a digital twin of their own body. Imagine receiving real time updates from your phone to monitor your health conditions and predict health crises before they happen, or athletes receiving instant updates on their training regimens and recommendations for improving. This future is possible, however significant further research is necessary.

In addition, researchers and stakeholders need to be realistic about the current capabilities of these models, as well as informed about the future of development. That is why the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO) is developing a National Digital Twins R&D Strategic Plan, to guide government investment in digital twins research and fast track development of this technology to address national priorities. The NITRD NCO released a Request for Information in late July to help inform the development of this strategic plan, and the CCC submitted a response.

In our response, we emphasized several key considerations for developing a strategic plan, one of those being that digital twins should not be treated as a novel invention. Digital models have been used since the 1950s to predict weather patterns and model the efficacy of different airplane designs, to name a few applications. Recent advancements in model capability, networking, and sensor development have allowed digital models to become more accurate, but we've been using very similar models for around 70 years. Digital twins themselves have even been in use since the 1960s, such as those employed by NASA to simulate spacecraft in space exploration missions.

With all of the recent innovation in generative AI, especially in image and text generation, it is easy to forget that AI models have limits. However, in practice, digital twin models do not store every bit of data or learned information. They also do not always store data at the highest granularity, because doing all of this is expensive in terms of energy consumption and necessary infrastructure. In our response, the CCC emphasized the importance of not over estimating the capabilities of these models.

Cybersecurity concerns are one of the largest considerations when implementing digital twins, because they create a new surface of attack for adversaries to exploit. To prevent unauthorized access, developers need to secure every endpoint of the system. Cryptographic protocols and algorithms can be used to prevent malicious corruption of a digital twin via the physical system. We also stressed that digital twins must be securely developed from the beginning, not as an afterthought.

Finally, we underscored the importance of co-design and establishing interdisciplinary teams to develop these models. For these models to be beneficial to end users and primary stakeholders, they must be developed with these users in mind, as well as the key features needed for the model's functionality. Development teams should also be composed of experts across disciplines to ensure the models are implemented accurately. For example, a digital twin of a bridge should consult the engineers who built the physical bridge, to ensure the sensors in the physical bridge are accurately represented in the digital twin. City planners and environmental experts may also be useful to consult, to have a better understanding of how many people typically use the bridge on a daily basis and to gather what simulations may be beneficial to run on the digital twin, such as hurricane or extreme winter storm simulations.

This CCC response was written by David Danks (University of California, San Diego), Catherine Gill (Computing Community Consortium), Chandra Krintz (University of California, Santa Barbara), Brian LaMacchia (Farcaster Consulting Group), Daniel Lopresti (Lehigh University), Mary Lou Maher (Computing Community Consortium), and Pamela Wisniewski (Vanderbilt University). Read the [CCC's full RFI response here](#).

CRA Awards ~\$1.5M via the UR2PhD Program to 5 Organizations To Support Initiatives That Will Broaden Participation in Computing



By Erik Russell, Director of Educational Initiatives and Julia Sepulveda, Senior Program Associate, CRA-E

Earlier this year, the Computing Research Association's UR2PhD team announced that it would be accepting proposals from non-profit organizations interested in supporting gender-marginalized students in computing. Today, we are thrilled to announce that we will award nearly \$1.5M to five organizations broadening participation in computing.

The UR2PhD leadership team is pleased to support organizations whose missions prioritize people and emphasize impact. **Christine Alvarado**, Associate Dean of the Division of Undergraduate Education at the University of California, San Diego and UR2PhD Program Leader shares, "We're truly looking forward to collaborating with these partners to achieve our shared goal of increasing the number of women and gender-marginalized students pursuing PhDs in computing. Each partner brings unique and complementary expertise that, together, will make it possible for women and gender-marginalized students from all backgrounds, demographics, abilities and circumstances to get excited about research and pursue their PhDs."

Kelly Shaw, UR2PhD Program Leader and Professor at William College, adds, "Increasing the number of women and gender-marginalized individuals earning PhDs in computing requires support and mentorship at every stage of a student's career, up through the completion of the PhD. These students face unique challenges and no one organization can provide all the resources and guidance they need to be successful. We're proud to be building partnerships that empower women and gender-marginalized students to explore their curiosity in computing research, so that they're ultimately able to obtain their PhD."

The **UR2PhD program**, which specifically focuses on increasing the number of undergraduate research opportunities and closing the gap between a first research experience and a successful PhD application, is funding the following organizations working to build support for gender-marginalized students in computing.

Institute for African-American Mentoring in Computing Sciences (iAAMCS) / Morehouse College

iAAMCS will develop a Summer Bridge Experience (SBX) Program to increase interest in pursuing doctoral computing degrees from African American, gender-marginalized individuals. iAAMCS' SBX program will offer a virtual research and training opportunity that results in students earning 3 hours of college credit, experience with Python programming, and community-building.

Last Mile Education Fund

Last Mile Education Fund will identify and support low social-economic status students in computing by deploying outreach campaigns, offering targeted supplemental grants, and establishing a Last Mile fund for students from marginalized genders pursuing computing-related PhDs.

The Computing Alliance of Hispanic-Serving Institutions (CAHSI) / the University of Texas at El Paso

CAHSI will double the number of Latin@s who apply to graduate school by December 2025. To do so, they will be developing and implementing campaigns that deliberately and intentionally recruit more gender-marginalized computing students into local research experiences for undergraduates. They will also be creating and establishing programming for the Future Latin@ Graduates in Computing community of practice for LREU gender-marginalized computing students.

AccessComputing / University of Washington

AccessComputing will increase the number of women and gender-marginalized individuals with disabilities (WGMD) on track to earn a PhD in a computing field. To realize this goal, the team will develop and disseminate resources for women and gender-marginalized

CRA Awards (*continued*)

individuals with disabilities and faculty who are supporting these students. AccessComputing will be leveraging funds to host a National Capacity Building Institute, develop a web page, videos, and webinars, and generate resources for WGMD students.

Modern Figures Podcast

The Modern Figures Podcast will facilitate more engagement of Black women and girls in computing by developing 2 new seasons of inspirational Modern Figures Podcast episodes, organizing listening sessions, raising visibility at affinity group conferences, and providing travel scholarships to gender-marginalized individuals in computing to attend conferences.

In selecting the recipients of the awards, the committee prioritized proposals that complemented UR2PhD's program goals. UR2PhD is grateful to have received several competitive proposals from organizations striving to broaden participation in computing. CRA hopes to continue to see diverse, dynamic initiatives and programs that meet the needs of underrepresented individuals in computing.

We look forward to sharing highlights from these exciting projects in the future.

NOTE: While CRA's UR2PhD program intends to increase the number of gender-marginalized students pursuing graduate studies in computing, program activities are not limited to students who identify as gender-marginalized. Students do not need to identify as a specific gender, race, or ethnicity to participate.

UR2PhD is Positively Shaping the Research Pipeline - And You Too Can Get Involved!

By Erik Russell, Director of Educational Initiatives, and Julia Sepulveda, Senior Program Associate, CRA-E

In 2023, the Computing Research Association's Committees on **Education** and **Widening Participation (CRA-E / -WP)** developed and launched the **Undergraduate Research to PhD Mentoring (UR2PhD) program** to increase the percentage of women and other gender-marginalized students graduating with PhDs in CS from 23% to 30%. To meet its objective, the UR2PhD program specifically focuses on increasing the number of undergraduate research opportunities for women and closing the gap between a student's first research experience and a successful PhD application.

UR2PhD is strengthening pathways into computing by offering virtual programming that empowers undergraduates, graduate students, and faculty mentors.

In recognition that students who have a positive undergraduate experience participating in research are much more likely to pursue doctoral studies in computing, UR2PhD offers virtual activities that make it easier and less time consuming for faculty and graduate students to offer experiential learning opportunities to undergraduates. Amongst those activities, the UR2PhD team offers an undergraduate research methods course that helps students learn and apply research skills, a graduate student mentor training course that provides mentors with guidance for developing interpersonal relationships in a research environment, and a series of workshops that educate and empower students about research careers, pathways, and graduate education.

UR2PhD is positively influencing undergraduate participants and those that work with them.

To date, the UR2PhD team has had more than 230 undergraduate students across two cohorts participate in its research methods

Research Pipeline *(continued)*

course. And according to early data collection, participants are benefiting from the experience. 92% of surveyed undergraduates in the research methods course indicated that they would like to pursue an advanced degree, with 46% planning to achieve a doctoral degree.

UR2PhD is not only changing the way that undergraduates see themselves as researchers, but is also supporting faculty mentors and departments to advance their research. Nearly all surveyed mentors indicated that the course was successful in their research engagement with students. Christelle Scharff, a faculty mentor at Pace University, shared: “The research course integrated perfectly in our summer initiative in undergraduate research. Students could get a comprehensive introduction to literature review and apply the methodology on the topics they worked on. The program permitted us free time to focus on advancing the research.”

UR2PhD plans to continue to offer program activities; we encourage prospective computing researchers and faculty mentors to get involved.

Looking ahead, UR2PhD plans to offer the research methods and graduate student mentor training course again in the fall of 2024. If you're interested in participating in future iterations of the courses, we plan to offer them again in the spring, summer, and fall next year.

Participants for the program are sourced through two primary avenues: institutional partnership and student applications. Institutional partners are departments that are committed to scaling the quality and scale of research opportunities available locally. **Applications** for institutional partnership are accepted on a rolling basis, year-round. Student applications for the spring will open later this fall; to view an example of what is expected students can refer to the **fall application**.

We encourage all faculty members to consider working with 2-4 new undergraduate researchers. The semester-long investment in the program will greatly reduce the amount of time required to get the students on-boarded into research. And if successful, can help you advance your research goals.

For more information about UR2PhD and the courses, we recommend visiting cra.org/ur2phd.

CRA Offers Undergraduates Support For Applying to Graduate School and Learning More About Research Careers and Pathways via UR2PhD

By Julia Sepulveda, Senior Program Associate, CRA-E

This fall, the **UR2PhD team** is launching the “**Graduate School Application Workshops for Computing Programs**,” with the intention of bridging the gap between a student’s first research experience and a successful application to graduate school.

Over the course of seven workshops, held every other Wednesday at 4pm ET from September 11, 2024 through December 4, 2024, students will acquire a better understanding of computing PhD programs and what is required to build a successful application. The Graduate School Application Workshops series will focus on educating students about the various components of a PhD application, while guiding them to reflect on their own experiences and goals.

Undergraduates Support *(continued)*

The second workshop, “Highlighting Your Personal Experiences & Interests” will be held on September 25, 2024 at 4pm ET. All undergraduate students attending North American institutions are eligible and encouraged to participate; students need not be affiliated with UR2PhD. **Students interested in participating MUST complete the registration form.** By registering, students will be able to access all seven workshops. The UR2PhD invites any student considering graduate school to **sign up**.

In addition to offering workshops that demystify the PhD application process, the UR2PhD team continues to offer **Computing Research Engagement and Awareness Workshops** that encourage students to learn more about research careers and pathways, with opportunities to connect with current researchers. The Engagement and Awareness Workshops series is held every third Monday of the month at 6pm from August to November. The next workshop, titled “Ask Me Anything (About Research)”, will take place on Monday, October 21 at 6 pm ET.

In offering both the “Computing Research Engagement and Awareness” and the “Graduate School Application” workshops, UR2PhD is hoping to encourage students to explore their interests in research. These workshops aim to offer a safe and structured space for undergraduates to ask questions, meet peers, and educate themselves on what research is and how research might fit into their professional goals. To learn more about the UR2PhD program and these workshops, folks are encouraged to visit the UR2PhD website at cra.org/ur2phd

Navigating the World of Computer Architecture from Chip Design to Formal Verification

By Alejandro Velasco Dimate (CRA-E Fellow, College of William & Mary) and Emma McDonald (CRA-E Fellow, University of Alberta)

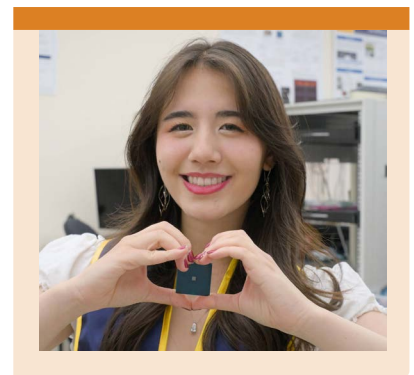
This Q&A highlight features Viansa Schmulbach, an Honorable Mention in the 2024 **CRA Outstanding Undergraduate Researchers** award program. Viansa finished her undergrad in Electrical Engineering and Computer Science at the University of California, Berkeley (UC Berkeley), and now is pursuing her PhD at MIT.

What can you tell us about your research interests?

My main focus is computer architecture. At MIT, I will work with professors **Christina Delimitrou** and **Daniel Sanchez** in the Computer Architecture and Systems Lab under the **Systems Community of Research**, covering topics that closely align with the ones I explored during my undergraduate studies at UC Berkeley. I have also worked on designing and fabricating chips.

How did you first get involved with research?

During the second semester of my junior year, I enrolled in a chip design class, taught by professors **Borivoje Nikolic**, **Kris Pister**, and **Ali Niknejad**. Although I was initially more interested in exploring computer architecture, taking this class ignited my interest in chip design research. I then had the wonderful opportunity to collaborate with Intel, and they let us use their facilities to turn our designs into real pieces of silicon that could be used. Designing chips was a significant challenge because of the many factors



Viansa Schmulbach, B.S. in Computer Science, University of California, Berkeley

Computer Architecture *(continued)*

that needed to be considered. While this process primarily focuses on optimizing performance, we also addressed other crucial aspects like the power consumption rate and the area of the chip. These aspects are important because I find many people are more concerned about their devices' battery life than about achieving top performance.

What can you tell us about your research?

Besides designing chips, one of my research topics was formal verification, which involves creating mathematical specifications to formally prove certain properties of a system. This is useful in the context of security. For example, given a hardware model specification and a known attack, such as **Spectre** which leaks the victim's sensitive data, we can generate constraints on the model to formally ensure the system is secure. Our focus was on identifying constraints that require minimal changes to the system to prevent potential vulnerabilities. An **abstract** of our work was accepted to the **FMCAD'23** Student Forum. I also had the chance to present a poster at the conference, which was a really good experience for me.

How was your experience working in formal verification?

When I got started with the formal verification project, I was assigned to work with two graduate students under my advisor **Sanjit Seshia**'s guidance. Initially, I worked on a simple formal verification project to learn the basics. We were working on trying to generate attacks, but I quickly found that scalability was a major issue. This led to many shifts in direction and we went from generating attacks to creating mitigations instead. A valuable lesson is that the more experimental your project is, the more likely it will change direction along the way.

How do you balance research with other activities in your personal life?

I am a very family-oriented person, and balancing research with the time I spend with my family is extremely important to me. I believe that setting boundaries is essential for achieving both, though it was challenging for me at first. There is always more work to be done, but I have realized that if something slips through the cracks, it's okay. I do not have to do everything. It's also crucial for me to be there for my family and spend quality time with them. As well, I enjoy cooking and going for walks. I think that being a happy well-rounded person will make you a better researcher. If you are always working around the clock, you will not be at your best.

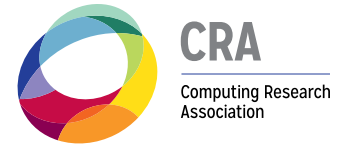
Do you have any advice for other students looking to get into research?

I felt like I struggled a lot at the beginning because it was difficult for me to find a research topic that I was interested in. My biggest advice if you are interested in research is not to be afraid of trying new things. Also, do not feel trapped. Many people, including myself, get stuck on certain topics because they feel guilty about leaving. However, as an undergraduate, exploring and trying new things is part of the journey, and you should not feel bad about moving on to something that better suits your interests.

Do you have any advice for students who doubt their ability to succeed in research?

In the past, I often felt like I did not belong in research. This was because I had a fixed mindset about what being "smart" meant. I had to do a lot of work to expand that definition, because it did not include me. Part of the reason finding a sense of belonging was so difficult is because I barely had any women professors when I was starting as an undergraduate. But then I took a class with **Sophia Shao**, who is a PI in the computer architecture lab, and that helped a lot. So did meeting senior women in my lab. Identifying people who you can look up to is helpful.

CRA @ GHC: Visit the CRA Booth at Grace Hopper Celebration 2024



By Lauren Lashlee, Senior Program Associate, CRA-WP, and Matt Hazenbush, Director of Communications

The Computing Research Association (CRA) is excited to be part of the **2024 Grace Hopper Celebration (GHC)** in Philadelphia, PA, from October 8-11! As the world's largest gathering of women in technology, GHC provides a unique opportunity for professionals, researchers, and students to connect and explore new career paths in computing.

Visit the CRA Booth

Stop by the CRA booth to meet our team and learn about our various committees and initiatives that support the computing research community. Whether you're interested in mentoring, career development, diversity in computing, or research opportunities, CRA has something for everyone.

At the booth, you'll have the chance to:

- Discover upcoming opportunities to apply for CRA programs and workshops.
- Learn about our efforts to promote diversity, equity, and inclusion in the computing field.
- Explore resources for undergraduate, graduate, and early-career researchers.

Plus, don't miss out on some exciting giveaways, including stickers, t-shirts, and our popular "tech tacos"—a fun, practical accessory that tech enthusiasts won't want to miss. The CRA booth will be a hub for sharing information and engaging with attendees, so be sure to stop by!

Recommended Sessions

There will be several presentations and panels that may align with your interests in advancing your computing career. Here are a few highlights:

- **RAI Revolutionaries: Charting Your Career Path in AI** - Learn how to navigate your career in Responsible AI from leaders in the field, who will discuss essential skills and strategies for addressing ethical challenges in AI development.
- **SheRise: Defy Imposter Syndrome with Data Insights** - This workshop explores the topic of imposter syndrome through data analysis and offers practical steps to overcome self-doubt in professional settings.
- **Empowerment in Transition: Navigating Campus to Corporate Life with Confidence and Well-Being** - Gain insights into transitioning from academia to the corporate world, with a focus on mentorship, communication, and personal advocacy.

GHC 2024 promises to be an inspiring event, and we're excited to connect with attendees who are passionate about shaping the future of computing. Whether you're exploring research opportunities, seeking career advice, or just want to chat with fellow tech enthusiasts, we hope to see you at the CRA booth!

Learn About Volunteer Opportunities with CRA-WP



By Susan Rodger, Co-Chair CRA-WP and Soha Hassoun, Future Co-Chair CRA-WP

CRA-WP is running virtual sessions this fall to describe volunteer opportunities for researchers in computing (Academics and those in Industry/government labs) and graduate students in computing to help with CRA-WP programs. If you are interested in becoming a volunteer and learning more about such opportunities, [fill out our volunteer form](#) and we will send you information on the virtual volunteer information sessions.

Volunteer Now

CRA-WP's mission is to widen the participation and improve access, opportunities, and positive experiences of individuals from populations that are underrepresented in computing research and education. We need researchers to supervise undergraduates in summer research, and to mentor junior researchers and graduate students in our in-person mentoring workshops. We need graduate students to mentor undergraduates in our summer research program. We provide mentor training for the volunteer opportunities for both researchers and graduate students.

Researchers (both academics and those in industry or labs) are needed as volunteer panelists and mentors for our in-person [Grad Cohort for Women](#) and [Grad Cohort for IDEALS](#) Workshops for a weekend every spring for graduate students who identify as female or who are in an underrepresented group in computing. Topics for the panels include skills to survive and succeed in graduate school such as networking, visibility, choosing a research topic, and balancing life and work. Senior researchers are also needed as panelists and mentors for our early and mid Career Mentoring Workshops (CMW) for junior researchers. Topics for those panels include advancing in your career, managing up and down, and many more topics.

Faculty volunteers are needed to supervise undergraduates in our [Distributed Research for Undergraduates](#) (DREU) program. Here is how that program works. Both faculty and undergraduates apply and are matched for the student to participate at the faculty's institution for 10 weeks in the summer. The student's institution could be the same as the faculty's or it could be different. Faculty are encouraged to support students or apply for an REU, and CRA-WP funding is provided for those without funding.

We have indirect volunteer activities for graduate students in computing. They can encourage their faculty research advisor to apply for the DREU program to do research with undergraduates, and then the graduate student can be a volunteer by being a mentor to those undergraduates doing research through the DREU program.

[Sign up to be a CRA-WP Volunteer](#) and then attend one of our virtual sessions to learn more.

OSTP Releases Research Security Memo to Research Agencies; Begins Implementation Timeline



CRA

Computing Research Association
Government Affairs

By Brian Mosley, Associate Director of Government Affairs

Last month, the Office of Science & Technology Policy (OSTP) released their long-expected memo on “[Guidelines for Research Security Programs at Covered Institutions](#).” This memo is the latest action taken by OSTP to implement the requirements in [National Security Presidential Memorandum 33 \(NSPM-33\)](#) and certain provisions of the [Chips and Science Act](#). The purpose is also to, “make sure that institutions of higher education and other research institutions recognize the altered global landscape and fulfill their responsibilities as the first line of defense against improper or illicit activity,” from nation-states and actors.

The memorandum defines a “covered institution” as an organization that is both, “both an institution of higher education, FFRDC, or a nonprofit research institution,” and receives in excess of \$50 million per year from the federal government. The memo is then broken into two parts, which correspond to the requirements of covered institutions and the standard requirements of their research security programs, and federal research agencies’ responsibilities and principles for implementation.

In the first part for covered institutions, there are four standard requirements for an institution’s research security program to contain:

- **Cybersecurity** – Requires that institutions of higher education institute a cybersecurity program, “constituent with the cybersecurity resource for research institutions,” within one year after NIST publishes the resource. Non-institutions of higher education are required to certify that they will implement a cybersecurity program, “consistent with another relevant cybersecurity resource maintained by NIST or another federal research agency.”
- **Foreign travel security** – Requires periodic training (at least once every six years) on foreign travel security for covered individuals, “engaged in international travel, including sponsored international travel, for organization business, teaching, conference attendance, or research purposes.” Also requires covered institutions to implement a travel reporting program, “for covered individuals participating in R&D awards when a federal research agency has determined that security risks warrant travel reporting in accordance with the terms of an R&D award.”
- **Research security training** – Institutions are required to implement a research security training program, “for all covered individuals to address the unique needs, challenges, and risk profiles of covered individuals and to certify that the institution ensures that each such covered individual completes such training.” There is some flexibility given to institutions here, as it allows them to use [NSF’s training modules](#) or certify that covered researchers have completed a program with similar components.
- **Export control training** – Requires covered institutions to certify that they require, “covered individuals who perform R&D involving export-controlled technologies, to complete training on U.S. export control and compliance requirements.” Again, some flexibility is provided here, allowing institutions to use the training offered by the Bureau of Industry and Security of the Department of Commerce, Directorate of Defense Trade Controls at the Department of State, or a training program with similar components.

In the second part of the memo, there are six responsibilities and principles that research agencies are expected to adhere to:

- **Non-discrimination** – Agencies are to ensure that the research security program requirements they impose, “do not result in targeting, stigmatization, or discrimination against individuals on the basis of race, color, ethnicity, religion, sex (including pregnancy, sexual orientation, or gender identity), national origin, age (40 or older), disability, or genetic information (including family medical history).” There is also a stipulation that agencies require covered institutions to certify that they have implemented safeguards, “to protect the rights of researchers, students, and research support staff or otherwise comply with such requirements.”
- **Flexibility** – Agencies are to allow covered institutions, “to structure their research security program to best serve the institution’s particular needs and to leverage existing programs and activities where relevant, provided that the institution implements all required program components.”

Research Security Memo (*continued*)

- **Mechanism for certifications** - Requires agencies to provide, “a written or electronic attestation to a federal research agency that the covered institution has met relevant research security program requirements.”
- **Reducing administrative burdens** - In developing their research security program requirements, agencies are expected to, “minimize administrative burden on covered institutions and covered individuals.” Additionally, agencies should encourage, “covered institutions to minimize administrative burden on covered individuals.” There is also a specific call out to be mindful of the administrative burden for less resourced institutions, with EPSCoR, HBCU, and MSI institutions specifically cited.
- **Minimizing impact to smaller institutions** - Straight from the memo: “Federal research agencies should avoid disadvantaging non-covered institutions during the award process in order to facilitate broad participation in the federal R&D enterprise.”
- **Additional requirements for the agency’s mission/community** - NSPM-33 permits agencies to develop additional requirements for their specific mission and community. The memo limits agencies to cases where, 1) policies are required by “statute, regulation, or executive order,” 2) more protections are needed for R&D that is, “classified information, technologies subject to Export Administration Regulations, or otherwise legally protected matters,” or 3) “other compelling agency-specific reasons” which are consistent with the law or the agency’s mission.

Finally, the memo begins the implementation timeline for these requirements. Agencies have six months to submit their plans to OSTP and OMB for the purposes of updating their policies, “to ensure this guidance is reflected in the Research Security Programs Standard Requirements of each federal research agency.” The updated policies are expected to go into effect six months after OSTP and OMB sign off on the plans. Agencies are then required to make sure covered institutions have adequate time to implement their research security programs. However, institutions must have their programs up and running no more than 18 months after the effective date of the agencies’ plans. Put another way, the community has no more than two and a half years to start up their research security programs, and those programs start impacting researchers directly.

There are several ways of looking at this document. From a positive perspective, the memo itself is quite reasonable and has no real surprises in it. OSTP and the federal research agencies have telegraphed their actions for the past several years on this topic. The policies set out in the memo provides plenty of lead time for the research community to implement the requirements. As an example, NSF has steadily rolled out their research security actions over the last two years, from [data analytics practices](#), to [training modules](#), and their [TRUST risk management framework](#). The other agencies have done the same or will start taking similar actions.

From another perspective, these requirements will start impacting researchers directly, particularly at universities, very soon. Research security programs are here to stay, and the research community should take these requirements seriously. For more context on the complexities of this topic, [in February](#), several research agencies went before the House Science Committee and spoke about the challenges of implementing these policies and the trepidation coming from their individual communities. Little has changed in the intervening months, except that the policies are now on the path to implementation.

CRA-I Sharing Healthcare Data Workshop



CRA-I

Computing Research Association
Industry

By Helen Wright, Manager, CRA-I

Computing Research Association - Industry (CRA-I) committee is holding a 1.5 day in-person workshop on October 17-18, 2024 in Washington, DC on [Sharing Healthcare Data](#). The workshop will delve into crucial aspects of data ownership, access, and control in the domain of healthcare, with dedicated sessions exploring topics such as “Barriers to Sharing Healthcare Data,” “InterAI: Connecting all health models/AI,” “Ethics in Health Data Sharing,” and “Navigating Regulatory Landscapes: AI Compliances in Health Data Sharing.”

The workshop is honored to feature Deborah Estrin from Cornell Tech and Tom Kalil from Renaissance Philanthropy as keynote speakers. The full agenda is [available here](#). Participants and speakers will collaborate to identify innovative technologies addressing key challenges in this field. A comprehensive summary report from the workshop will be released to the research community, and attendees will have the opportunity to contribute to its development.

This workshop is spun off of the very successful [CRA-I Sharing Healthcare Data Roundtable](#) in December 2023. Please let Helen Wright (hwright@cra.org) know if you would like to learn more.

Hector Gonzalez (SpiNNcloud Systems) Joins CRA-Industry Council



CRA-I

Computing Research Association
Industry

By Helen Wright, Manager, CRA-I

CRA-Industry (CRA-I) is excited to announce that **Hector Gonzalez** of SpiNNcloud Systems has joined the CRA-I Council. Hector joins a vibrant group of council members led by CRA-I Council Chair Ron Brachman from Cornell Tech. Together, they are committed to working with the CRA-I Steering Committee to guide the direction of future initiatives, engage with the community, and advance the goals of CRA-I.

Hector is the co-founder and co-CEO of SpiNNcloud Systems, a deep-tech company providing brain-inspired microchips and systems for the third generation of AI. Hector has helped position SpiNNcloud among the most relevant hardware startups in Germany. Under his co-leadership, the company has received several recognitions, including the largest EU grant for startups (EIC Transition) in the challenge of “Green digital devices of the future”. Hector is a Fellow of the Konrad Zuse School of Excellence in Embedded Composite Artificial Intelligence (SECAI). He holds a B.Sc. degree in Electronics Engineering and is a graduate of the MIT and Masdar Institute Cooperative Program in Abu Dhabi, where he earned an M.Sc. degree in Microsystems after conducting research on AI hardware for EEG-based emotion detection. His PhD studies at TU Dresden focused on chip design for AI-enabled Digital Signal Processors (DSPs) for automotive radars. Hector has held senior industrial positions in Instrumentation & Control across various countries and has received numerous international academic honors and awards. He has authored or co-authored more than 23 peer-reviewed articles, is the inventor of a patent in the cognitive radar field, and has been part of numerous press communications from prominent sources such as IEEE Spectrum, the BBC, Arm, EE Times, Sandia National Labs, eeNews Europe, Silicon Angle, and the the EU flagship Human Brain Project, among others.



Please help the industry research community by continuing to nominate outstanding colleagues for the CRA-I Council. [Read more here](#) and send nominations to industryinfo@cra.org.

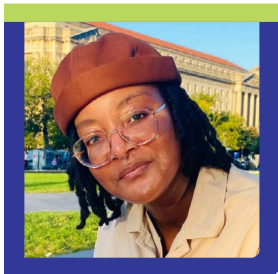
Welcome, Hector!

CRA Welcomes New Staff

By Elora Daniels, Communications Associate

The Computing Research Association is proud to welcome new staff to our CCC, CERP, CRA-E, operations, and grants teams. With a range of unique backgrounds and skills, CRA is thrilled to continue bringing together a world-class team in support of our mission to unite industry, academia, and government to advance computing research and change the world.

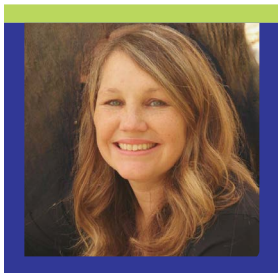
While some of these celebrations are long overdue, please join us in welcoming Petruce Jean-Charles, Ashley Crnkovich, Nene Bundu, Jasmine Batten, and Sheila Khan to CRA!



Petruce Jean-Charles

Communications Associate, CCC

Petruce holds a Bachelor of Arts in Communications from Kean University and a Master of Journalism and Public Affairs from American University. With her background in communications, journalism, and social media, she has a passion for creating and strategizing content in various communities.

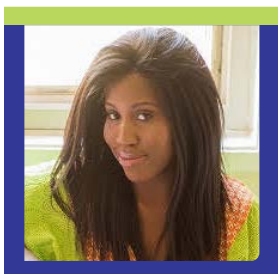


Ashley Crnkovich

Grants Specialist

Ashley Crnkovich is a Grants Specialist for the Computing Research Association. Within the Contracts & Grants Administration team, she is responsible for grants administration of CRA's funded initiatives. She joins CRA with about seven years of experience in pre and post award management at the International Computer Science Institute.

After nearly a decade in the Bay Area, Ashley returned to her roots in Omaha, NE where she received her Bachelor's degree in Literature and a Master's in Public Administration. Outside of work, she is an amateur real estate entrepreneur with her husband and enjoys baking bread, gardening, and spending quality time with her family.



Nene Bundu

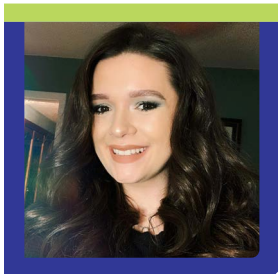
Administrator for Events Management

Nene Bundu hails from Sierra Leone with a degree in business administration and over 9 years of experience in the event and hospitality industry. She is beyond excited to be a part of CRA and assist with fulfilling the mission of this organization.

As a dedicated meeting planner, Nene is known for creating seamless and memorable events. Nene specializes in corporate events and combines creativity with meticulous attention to detail to deliver exceptional experiences for clients and attendees. Her career began with planning weddings, social, black tie, and charity events. In the past 5 years, her focus has shifted to corporate, meetings, conferences, seminars, and virtual events. Having coordinated events ranging from intimate corporate meetings to large-scale conferences and conventions, Nene understands the importance of customization and personalization in every event. She thrives on challenges and is committed to ensuring every aspect of an event exceeds expectations, from initial concept to final execution.

New Staff (*continued*)

Outside of work, Nene enjoys reading, spending time with family, and being involved in community activities. She is dedicated to staying current with industry trends and innovations, with a personal mission to continually enhance her skills and deliver unparalleled services to CRA.



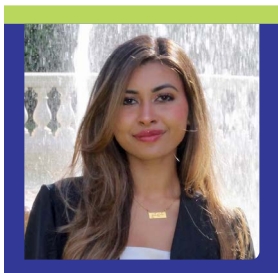
Jasmine Batten

Research Associate, CERP

Dr. Jasmine Batten (she/her) is a Research Associate at the CRA's Center for Evaluating the Research Pipeline (CERP). In her role, she manages the annual Taulbee survey and supports the evaluation of various programs aimed at broadening participation in computing within higher education. Dr. Batten earned her Bachelor's degree in Computer Science in 2019 from Florida International University (FIU) and her Ph.D. in Computer Science in 2024 from FIU. Before joining CERP, she was a research assistant in Dr. Monique Ross's LEARN-CS lab at Florida International University in Miami, FL. During her Ph. D. program, she was awarded the NSF Graduate Research Fellowship (GRF), which supported her research endeavors around broadening participation in computing.

Dr. Batten is passionate about improving computing education to support minoritized students in pursuing computing degrees and occupations. Specifically, Dr. Batten's research interests center on understanding the factors that influence the persistence and retention of female and minoritized students in computing degree programs through mixed-methods research. She is particularly interested in how pedagogical practices and classroom cultures impact students' sense of belonging in computing at the intersection of gender, race, and ethnicity. Dr. Batten is passionate about improving computing education to support minoritized students in pursuing computing degrees and occupations. Dr. Batten has published in various computing and engineering education conferences in journals during her undergraduate and graduate school years. She has also volunteered as a moderator, judge, and reviewer at several conferences.

In her free time, she enjoys knitting (while watching TV), reading, and practicing yoga.



Sheila Khan

Program Associate, CRA-E

Sheila Khan is a Program Associate for the Computing Research Association's Education (CRA-E) subcommittee. In this role, she supports the CSGrad4US graduate fellowship and mentoring program.

Sheila has a Bachelor's degree in Psychology and a Master's in Public Health, both from Virginia Commonwealth University. Prior to joining CRA, Sheila worked for the Virginia Department of Health in Richmond, VA. Outside of work, Sheila likes to travel, go on walks, bake, and spend time with her cat.

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Column Editors

Expanding the Pipeline
Soha Hassoun, Tufts University
Patty Lopez, New Mexico State University

Amherst College

Assistant Professor of Computer Science - Data Structures and Algorithms

The Amherst College Department of Computer Science invites applications for a full-time tenure-track position at the rank of assistant professor, beginning July 1, 2025. Candidates with research in any area of data structures and algorithms, broadly construed, are welcome to apply. Amherst College is one of the most diverse liberal arts colleges in the country. During the 2023-2024 academic year, nearly one-quarter of Amherst's students were Pell Grant recipients, nearly half identified as domestic students of color, and 11 percent were international students, with non-U.S. citizenship; 16 percent were the first members of their families to attend college. Amherst is committed to providing financial aid that meets 100 percent of every student's demonstrated need, and nearly 60 percent of our students receive financial aid. Our expectation is that the successful candidate will excel at teaching and mentoring students who are broadly diverse. The department and college are committed to increasing the diversity of our faculty and to helping all members of our community thrive.

Both research and teaching are strongly supported by the college, which is situated within a vibrant intellectual community (including the University of Massachusetts Amherst, an R1 university with a highly ranked CS department). The department has nine tenure-line faculty with research programs in areas including performance modeling,

natural language processing, data science, machine learning, algorithms, complexity, and systems. A number of faculty are supported by NSF research grants. The department is housed in a recently constructed science center that contains top-notch research and teaching facilities. The teaching load is two courses per semester, in addition to advising senior honors theses. The successful candidate will also be expected to participate in the department's governance and intellectual community and to engage in the life of the college.

Amherst College is a small, highly selective liberal arts college located in western Massachusetts. The college is part of the Five College Consortium, which supports collaborations with nearby Hampshire, Mount Holyoke, and Smith Colleges, and affords many opportunities for joint work with researchers at the University of Massachusetts.

The successful candidate must have a Ph.D. in computer science or have fulfilled all requirements for the degree by the start of the appointment. Candidates are asked to submit a cover letter, curriculum vitae, research and teaching statements, and three confidential letters of recommendation electronically to <http://apply.interfolio.com/151826>. Applications received by October 14, 2024, will be assured of full consideration. Review of applications will continue until the position is filled.

Statement of Nondiscrimination

Amherst College does not discriminate in admission, employment, or administration of its programs and activities on the

basis of race, national or ethnic origin, color, religion, sex or gender (including pregnancy, sexual orientation, gender expression, and gender identity), age, disability, genetic information, military service, or any other characteristic or class protected under applicable federal, state or local law. Amherst College complies with all state and federal laws that prohibit discrimination, including Title VII of the Civil Rights Act, Title IX, Section 504 of the Rehabilitation Act, the Americans with Disabilities Act, the Equal Pay Act, and the Age Discrimination in Employment Act. Inquiries should be addressed to the chief equity and inclusion officer, Amherst College, P.O. Box 5000, Amherst, MA 01002-5000.

Amherst College

Assistant Professor of Computer Science - Systems

The Amherst College Department of Computer Science invites applications for a full-time tenure-track position at the rank of assistant professor, beginning July 1, 2025. Candidates with research in any area of computer systems, broadly construed, are welcome to apply. Amherst College is one of the most diverse liberal arts colleges in the country. During the 2023-2024 academic year, nearly one-quarter of Amherst's students were Pell Grant recipients, nearly half identified as domestic students of color, and 11 percent were international students, with non-U.S. citizenship; 16 percent were the first members of their families to attend college. Amherst is committed to providing

financial aid that meets 100 percent of every student's demonstrated need, and nearly 60 percent of our students receive financial aid. Our expectation is that the successful candidate will excel at teaching and mentoring students who are broadly diverse. The department and college are committed to increasing the diversity of our faculty and to helping all members of our community thrive.

Both research and teaching are strongly supported by the college, which is situated within a vibrant intellectual community (including the University of Massachusetts Amherst, an R1 university with a highly ranked CS department). The department has nine tenure-line faculty with research programs in areas including performance modeling, natural language processing, data science, machine learning, algorithms, complexity, and systems. A number of faculty are supported by NSF research grants. The department is housed in a recently constructed science center that contains top-notch research and teaching facilities. The teaching load is two courses per semester, in addition to advising senior honors theses. The successful candidate will also be expected to participate in the department's governance and intellectual community and to engage in the life of the college.

Amherst College is a small, highly selective liberal arts college located in western Massachusetts. The college is part of the Five College Consortium, which supports collaborations with nearby Hampshire, Mount Holyoke, and Smith

Colleges, and affords many opportunities for joint work with researchers at the University of Massachusetts.

The successful candidate must have a Ph.D. in computer science or have fulfilled all requirements for the degree by the start of the appointment. Candidates are asked to submit a cover letter, curriculum vitae, research and teaching statements, and three confidential letters of recommendation electronically to <http://apply.interfolio.com/151829>. Applications received by October 14, 2024, will be assured of full consideration. Review of applications will continue until the position is filled.

Statement of Nondiscrimination

Amherst College does not discriminate in admission, employment, or administration of its programs and activities on the basis of race, national or ethnic origin, color, religion, sex or gender (including pregnancy, sexual orientation, gender expression, and gender identity), age, disability, genetic information, military service, or any other characteristic or class protected under applicable federal, state or local law. Amherst College complies with all state and federal laws that prohibit discrimination, including Title VII of the Civil Rights Act, Title IX, Section 504 of the Rehabilitation Act, the Americans with Disabilities Act, the Equal Pay Act, and the Age Discrimination in Employment Act. Inquiries should be addressed to the chief equity and inclusion officer, Amherst College, P.O. Box 5000, Amherst, MA 01002-5000.

California State Polytechnic University

Assistant Professor, Computer Science

The Computer Science Department at Cal Poly Pomona invites applications for one tenure-track position at the rank of Assistant Professor, appointment effective Fall 2025. We have a strong commitment to inclusive excellence and to educational experiences that leverage the diverse perspectives and experiences needed to succeed and thrive in a diverse society. Duties and responsibilities: actively engage in the teaching, research and curricular development activities of the department at both undergraduate and graduate levels; actively engage in department/university services.

Required Qualifications: Possess at the time of appointment, a Ph.D. in Computer Science or closely related area. Demonstrated commitment to inclusivity and equity. Demonstrated potential to establish an active research program with undergraduate and/or master's students. Demonstrated potential to teach a broad range of undergraduate courses and graduate courses.

Consideration of completed applications will begin on Sept. 29, 2024 and will continue until the position is filled. For expanded position description and application information, please go to [PageUp job Ad](#) . For general inquiries, please call 909-869-3440 or email cs@cpp.edu. EOE

Carleton College

Assistant Professor of Computer Science

Carleton College invites applications for a tenure-track position in computer science at the Assistant Professor level. Position to begin September 1, 2025. We welcome candidates with any specialization in computer science or closely related fields, and we are particularly interested in candidates committed to teaching a diverse student body. Applications are due October 2, 2024. View the [full job posting here](#).

Carnegie Mellon University

Faculty Hiring All Tracks

The School of Computer Science at Carnegie Mellon pushes the boundaries of computer science research and education. The School houses seven departments: Computational Biology, Computer Science, Human-Computer Interaction, Software and Societal Systems, Language Technologies, Machine Learning and Robotics.

SCS is seeking to fill several faculty positions across all departments, in all tracks and at all levels, with joint appointments when appropriate. The four faculty tracks in our School include: tenure, research, systems and teaching tracks. We are seeking candidates with a strong interest in research and/or teaching, an earned Ph.D. (in computer science or relevant fields), and outstanding academic credentials. Such candidates should be effective at collaborating with other faculty. Candidates for tenure and teaching track

appointments should also have a strong interest in graduate and undergraduate education and therefore must be prepared to teach in a wide variety of settings, including large undergraduate lecture courses and classes delivered in non-traditional formats. Research track faculty are not required to teach and generally focus most or all of their effort on cutting-edge research. Systems track similarly teach only on an exceptional basis and focus all or most of their effort on designing and building novel systems.

Candidates with a commitment toward building an equitable and diverse scholarly community are particularly encouraged to apply. We seek to continuously improve the diversity of our student, staff and faculty populations, including and especially through annual faculty hiring processes.

Each department's hiring committee thoroughly reviews the qualifications of every applicant, and are particularly enthusiastic about applicants whose background and experiences would make them unique among our faculty. Applications from candidates who have a demonstrated track record in mentoring and nurturing women and students from groups traditionally underrepresented in computer science are strongly encouraged.

We will begin accepting applications beginning August 5, 2024. To ensure full consideration of your application, please submit all materials no later than December 11, 2024. In your cover letter, please indicate clearly the department(s) you are applying to. You can learn more about our hiring plans and application

instructions by visiting <https://scsdean.cs.cmu.edu/faculty-hiring>

IMPORTANT: At this site you will find guidance regarding specific timelines for review of applications in each of our departments.

Please send email to faculty-search@cs.cmu.edu with any questions.

Carnegie Mellon University shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

Carnegie Mellon University

Faculty Hiring Teaching Track

The School of Computer Science (SCS) at Carnegie Mellon University is one of the world's leading organizations for computer science academic research and education. The college houses seven departments: Computational Biology, Computer Science, Human-Computer Interaction, Software and Societal Systems, Language Technologies, Machine Learning, and Robotics. Carnegie Mellon University is located in Pittsburgh,

PA, USA, a vibrant yet affordable city known especially for its opportunities and resources in medicine, technology, the arts, and higher education.

SCS is seeking to fill several teaching track faculty positions, across all departments, with joint appointments when appropriate. The teaching track in SCS offers career-oriented positions focused on educational excellence.

Candidates for teaching track appointments should have strong interest and experience in graduate and undergraduate education, a Ph.D. in Computer Science or a relevant field, and outstanding academic credentials. Some programs will consider applicants with an MS and significant experience. The position involves teaching classes in their general area of expertise, ranging from large undergraduate lecture courses to small studio courses depending on departmental needs.

In addition to being excellent educators, candidates are encouraged to contribute to the department through activities such as research, outreach, advising, or curriculum development.

Candidates with a commitment to building an equitable and diverse scholarly community are particularly encouraged to apply. We encourage applications from candidates who have a demonstrated track record in mentoring and nurturing students from groups traditionally underrepresented in computer science.

We will begin accepting applications beginning August 4, 2024. We will review

applications based on two deadlines: October 2, 2024 and December 11, 2024. To ensure full consideration of your application, please submit all materials no later than your chosen deadline. In your cover letter, please indicate clearly the department(s) to which you are applying. You can learn more about the hiring plans of each department and application instructions by visiting <https://scsdean.cs.cmu.edu/faculty-hiring>.

Please send an email to faculty-search@cs.cmu.edu with any questions.

Carnegie Mellon University shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

Clemson University

Assistant Professor Faculty Positions in Computer Science

The Division of Computer Science within Clemson University's School of Computing invites applications for four assistant level tenure-track faculty positions to start

Fall 2025. Three positions are focused on candidates with expertise in software engineering; systems and networking; NLP and LLMs; and algorithms/theory. Another position is focused on explainable AI, which is a joint position with Artificial Intelligence-Enabled Devices for the Advancement of Personalized and Transformative Health Care in South Carolina (ADAPT-SC).

Applicants should indicate their specific research specialties/interests in their cover letter. Application materials, including a vita, statements on teaching and research and contact information for securing three confidential reference letters should be submitted at this link: <http://apply.interfolio.com/138333>

College of the Holy Cross

Tenure-Track Assistant Professor of Computer Science Faculty Position

The Department of Mathematics and Computer Science at the College of the Holy Cross invites applications for a full-time tenure-track Assistant Professor in Computer Science beginning August 2025. All research specialties will be considered.

This position carries a 3-2 teaching load with a research leave prior to tenure review of either a full year at 80% salary or a semester at full salary, and generous sabbatical and fellowship leaves for tenured faculty. Faculty receive start-up funding to support their research and professional development and have a one-course reduction in their first year of teaching (i.e., 2-2). Candidates must

demonstrate excellence in scholarship and a commitment to effective undergraduate teaching in the context of a liberal arts college. A Ph.D. in computer science or closely related field is required by the beginning of the appointment.

The College of the Holy Cross uses Interfolio to collect job applications electronically. Please visit <https://apply.interfolio.com/151805> for application details and to submit an application. The College, a highly selective Catholic liberal arts college in the Jesuit tradition, values dialogue among people from diverse perspectives as integral to the mission and essential to the excellence of our academic program. The College is an Equal Employment Opportunity Employer and complies with all Federal and Massachusetts laws concerning equal opportunity and affirmative action in the workplace.

Application review will begin on October 8, 2024 and continue until the position has been filled. Direct questions to Professor Laurie King, lking@holycross.edu.

College of the Holy Cross

Tenure-Track Barrett Assistant Professor of Computer Science Faculty Position

The Department of Mathematics and Computer Science at the College of the Holy Cross invites applications for the Barrett Assistant Professor of Computer Science, a full-time tenure-track position to begin in August 2025. Applicants should demonstrate an interest and expertise in the ethical, legal, and moral dimensions of computing and technology,

and conduct research or teaching in related areas such as: data privacy and data ethics; alignment and algorithmic fairness; information, speech, and policy; technology ethics; design/engineering of ethical technologies; technologies and methods related to misinformation, disinformation, trust, and authenticity; algorithmic bias and accountability; or equitable computing.

This position carries a 3-2 teaching load with a research leave prior to tenure review of either a full year at 80% salary or a semester at full salary, and generous sabbatical and fellowship leaves for tenured faculty. Faculty receive start-up funding to support their research and professional development and have a one-course reduction in their first year of teaching (i.e., 2-2). Candidates must demonstrate excellence in scholarship and a commitment to effective undergraduate teaching in the context of a liberal arts college. A Ph.D. in computer science or closely related field is required by the beginning of the appointment.

The College of the Holy Cross uses Interfolio to collect job applications electronically. Please visit <https://apply.interfolio.com/151804> for application details and to submit an application. The College, a highly selective Catholic liberal arts college in the Jesuit tradition, values dialogue among people from diverse perspectives as integral to the mission and essential to the excellence of our academic program. The College is an Equal Employment Opportunity Employer and complies with all Federal and Massachusetts laws concerning

equal opportunity and affirmative action in the workplace.

Application review will begin on October 8, 2024 and continue until the position has been filled. Direct questions to Professor Kevin Walsh, kwalsh@holycross.edu.

Georgia Institute of Technology

Postdoctoral Researcher - Cybersecurity

The School of Cybersecurity and Privacy at the Georgia Institute of Technology has an immediate new opening for a full-time Postdoctoral Researcher in the area of Cybersecurity.

The successful applicant will work with Prof. Brendan Saltaformaggio and the Cyber Forensics Innovation (CyFI) Laboratory at the Georgia Institute of Technology in Atlanta, GA. More information about the CyFI Lab's research can be found here: <https://cyfi.ece.gatech.edu/>

The successful applicant will join the CyFI Lab and conduct research in cyber forensics and computer system security, key applications in the analysis of untrusted/malicious software and the security of IoT/mobile/cyber-physical systems.

Applicants should be motivated to both join existing projects as well as propose new opportunities and directions. The successful applicant will work with Prof. Saltaformaggio as well as graduate and undergraduate researchers in the lab.

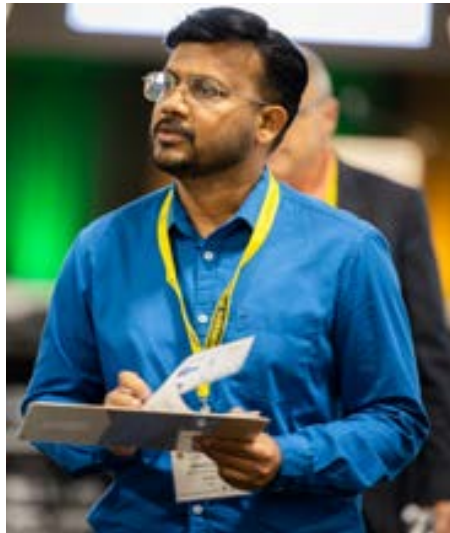
Apply here: <https://academicjobsonline.org/ajo?joblist-4307-26282>



As one of the nation's largest and most dynamic computing colleges, the College of Computing & Software Engineering at Kennesaw State University is expanding and inviting applications for both non-tenure-track and tenure-track positions across all ranks. We are seeking talented individuals in Computer Science, Information Technology, Software Engineering, Game Development, and Data Science and Analytics. We offer competitive salaries and start-up packages to support research faculty in initiating their research projects.

Join us to teach in comprehensive degree programs, designed to produce top career-ready talent in cutting-edge areas of computing. Contribute to our extensive research portfolio and increase the impact through transformative ideas and multidisciplinary collaborations.

The college provides bachelor's, master's, PhD degrees, and certificate programs in various aspects of computing. With an enrollment of over 6,000 students and over 150 faculty and staff, our programs span the Departments of Computer Science, Information Technology, Software Engineering and Game Development, and the School of Data Science and Analytics.



Additional information about the College of Computing and Software Engineering and all [academic units](#) can be found on our website.

To apply, visit our [job postings](#).

Position Information

- Location: Metro Atlanta, GA
- R2 University
- 24 positions available in:
 - Administration
 - Tenure Track Open Rank
 - Non-Tenure Track
- Areas:
 - Artificial Intelligence
 - Computer Science
 - Cybersecurity
 - Data Science
 - Game Design
 - Information Technology
 - Software Engineering
- Competitive salary
- Generous start-up packages for research faculty
- Professional development
- Industry collaboration opportunities
- Interdisciplinary research opportunities with 11 other colleges



Northeastern University

Khoury College Teaching Faculty and Campus Leadership

The Khoury College of Computer Sciences at Northeastern University is looking for passionate teacher-scholars to join our faculty. Khoury College is a fun, dynamic environment with great colleagues who are deeply committed to fostering a diverse and inclusive learning environment and to generating diversity of thought and broadening participation in the field of computing.

Teaching, building relationships with students, and service to the college & university are all integral components of the position. Additionally, Khoury College supports teaching faculty who choose to pursue impactful activities beyond these responsibilities, including research & scholarship, diversity initiatives, and outreach to the local community.

We have a variety of teaching-track positions available beginning September 2024 or January 2025 across our campuses in Arlington, VA; Boston, MA; Miami, FL; Portland, ME; Seattle, WA; Bay Area, CA; and Vancouver, Canada, as well as our Online “campus.” We are especially focused on recruiting dynamic leaders with a demonstrated track record of higher-education administrative impact (e.g., department chair, program coordinator) as the Director of Computing Programs at our Seattle and Miami campuses.

Full descriptions of all positions and instructions for applying can be found on our open faculty positions page:

<https://www.khoury.northeastern.edu/information-for-overview/prospective-faculty/open-positions/teaching-faculty/>

Princeton University

Assistant Professor of Computer Science

The Department of Computer Science at Princeton University invites applications for tenure track faculty positions at the Assistant Professor level. We are accepting applications in all areas of Computer Science. Applicants must demonstrate superior research and scholarship potential as well as teaching ability.

The department is committed to fostering a diverse and inclusive academic community with a culturally diverse faculty. We are particularly interested in receiving applications from members of groups that have been historically underrepresented in Computer Science. A PhD in Computer Science or a related area is required. Candidates should expect to receive their PhD before September 1, 2025. Successful candidates are expected to pursue an active research program and to contribute significantly to the teaching programs of the department.

Applications should be submitted online at <https://www.princeton.edu/acad-positions/position/35661> and should include a CV, research statement, teaching statement, and contact information for at least three people who can comment on the applicant’s professional qualifications. We seek faculty members who will create a climate that embraces excellence and diversity, with a commitment to teaching

and mentoring that will enhance the work of the department and attract and retain a diverse student body. Candidates progressing in the selection process will be asked to provide a link to a short video presentation of a research talk. For full consideration we recommend that applicants apply by December 1, 2024, though we will continue to review applications past that date as needed. This position is subject to the University’s background check policy

Princeton University is an Equal Opportunity/Affirmative Action Employer and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability status, protected veteran status, or any other characteristic protected by law. EEO IS THE LAW. <https://rrr.princeton.edu/equal-opportunity-policy>

Requisition No: D-25-COS-00001

Princeton University

Associate or Full Professor of Computer Science

The Department of Computer Science at Princeton University invites applications at the Associate and Full Professor level. We are accepting applications in all areas of Computer Science. Applicants must demonstrate superior research and scholarship as well as an excellent teaching record.

The department is committed to fostering a diverse and inclusive academic

Professional Opportunities

community with a culturally diverse faculty. We are particularly interested in receiving applications from members of groups that have been historically underrepresented in Computer Science. A PhD in Computer Science or a related area is required. Successful candidates are expected to pursue an active research program and to contribute significantly to the teaching programs of the department.

Applications should be submitted online at <https://www.princeton.edu/acad-positions/position/35663> and should include a CV, research statement, teaching statement, and contact information for four people (no more than 5) who can comment on the applicant's professional qualifications. We seek faculty members who will create a climate that embraces excellence and diversity, with a commitment to teaching and mentoring that will enhance the work of the department and attract and retain a diverse student body. Candidates progressing in the selection process will be asked to provide a link to a short video presentation of a research talk. For full consideration we recommend that applicants apply by December 1, 2024, though we will continue to review applications past that date. This position is subject to the University's background check policy.

Princeton University is an Equal Opportunity/Affirmative Action Employer and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability

status, protected veteran status, or any other characteristic protected by law. EEO IS THE LAW. <https://rrr.princeton.edu/equal-opportunity-policy>

Requisition No: D-25-COS-00002

Purdue University

PostDoc in Applied Machine Learning

We are seeking applicants for a postdoc position that offers a unique and great opportunity of interdisciplinary training in machine learning and functional genomics. This position is funded by the initiative of the Institute for Physical Artificial Intelligence at Purdue University to support postdocs whose innovative projects in artificial intelligence have the ability to make tangible impact on real-world problems. The postdoc will partner with two advisors (Dr. Jing Gao and Dr. Ying Li), who are from different disciplines and have established collaborations.

The funded postdoc will receive an annual salary of \$70,000 and benefits, \$2,500 for professional development and \$50,000 to support the research. The position is under yearly renewable contract, and the total funding is for two years and possible to be extended for the 3rd year.

PhD degree in computer science, bioinformatics, statistics, biology or in any related field is required.

This position is available in September 2024, and will remain open until filled.

For more details, and to apply, please visit <https://engineering.purdue.edu/~jinggao/postdoc.htm>.

Purdue University

Post-doctoral Fellow in Purdue NSF Center CHORUS

We are recruiting for multiple Post-doctoral Fellow positions to join our newly funded National Science Foundation (NSF) Center CHORUS (www.choruscomputes.xyz). The positions are available immediately and we are filling the positions on a rolling basis. The Fellows will work with at least two faculty across 4 universities and supervise multiple top PhD students.

PI: Prof. Saurabh Bagchi, Purdue ECE and CS

Requirements

1. PhD from a top CS or ECE department in the US, completed in the last 2 years, or expected soon

AI Strategist



San Francisco Bay University (SFBU) is a small-sized nonprofit, WASC-accredited university located in Fremont, California. We offer degrees in computer science (BS, MS), electrical engineering (MS), business (BABS/ MBA/ MSBan/ MSDS), and professional educational programs.

We seek a highly motivated AI Strategist with your expertise to develop strategy, policies, resources, and tools. This role reports to the Vice President for Strategy and Innovation and plays a pivotal role in shaping SFBU's future as a leader in AI education and integration.

See full details <https://apptrkr.com/5435219>

2. Expertise in one of the following two areas and interest in the other:
 - Security/reliability in AI
 - Theoretical ML
3. Expertise is demonstrated through publications at top conferences (4 first-authored papers is a typical minimum requirement)

To apply

<https://bit.ly/purduepostdoc24>

Stanford University

Faculty Positions in Operations, Information and Technology

The Operations, Information and Technology (OIT) area at the Graduate School of Business, Stanford University, is seeking qualified applicants for full-time, tenure-track positions, starting September 1, 2025. All ranks and relevant disciplines will be considered. Applicants are considered in all areas of Operations, Information and Technology (OIT), including the management of service and manufacturing systems, supply and transportation networks, information systems/technology, energy systems, and other systems wherein people interact with technology, markets, and the environment. Applicants are expected to have rigorous training in management science, operations research, engineering, computer science, economics, and/or statistical modeling methodologies. Candidates with strong empirical training in economics, behavioral science or computer science are encouraged to

apply. The appointed will be expected to do innovative research in the OIT field, to participate in the school's PhD program, and to teach both required and elective courses in the MBA program. Junior applicants should have or expect to complete a PhD by September 1, 2025.

Applicants should submit their applications electronically by visiting the web site <http://www.gsb.stanford.edu/recruiting> and uploading their curriculum vitae, research papers and publications, and teaching evaluations, if applicable, on that site. Applications will be accepted until November 15, 2024. **For an application to be considered complete, the applicant must submit a CV and job market paper and arrange for three letters of recommendation to be submitted before the application deadline of November 15, 2024.**

The Stanford Graduate School of Business will not conduct interviews at the INFORMS Annual meeting in Seattle, but some OIT faculty members will attend. Hence candidates who will be presenting at INFORMS are encouraged to submit their CV, a research abstract, and any supporting information before October 11, 2024. Any questions regarding the application process should be sent by email to Faculty_Recruiter@gsb.stanford.edu.

The expected base pay range for this position is:

Assistant Professor: \$205,000 - \$225,000

Associate Professor: \$230,000 - \$260,000

Full Professor: \$330,000 - \$395,000

Stanford University has provided a pay range representing its good faith estimate of what the university reasonably expects to pay for the position. The pay offered to the selected candidate will be determined based on factors including (but not limited to) the experience and qualifications of the selected candidate including years since terminal degree, training, and field or discipline; departmental budget availability; internal equity; and external market pay for comparable jobs.

Consistent with its obligations under the law, the University will provide reasonable accommodation to any employee with a disability who requires accommodation to perform the essential functions of his or her job. Stanford is an equal employment opportunity and 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, protected veteran status, or any other characteristic protected by law. Stanford welcomes applications from all who would bring additional dimensions to the University's research, teaching, and clinical missions.

Stanford University

Open Rank Faculty Position Statistics

The Department of Statistics at Stanford University invites applications for a tenure-track or tenured appointment at any rank and in any area of Statistics or Probability, broadly understood. Applicants should have demonstrated strong research abilities and exhibit a

commitment to teaching and mentoring. The successful candidate must have a Ph.D. in statistics, data science, computer science, mathematics, or a related discipline at the time of appointment and will be expected to teach and advise students at both the graduate and undergraduate levels. The appointment is expected to begin on September 1, 2025.

Candidates should apply through [Stanford Faculty Positions](#)

Swarthmore College

Assistant Professor

The Computer Science Department at Swarthmore College invites applications for a tenure track Assistant Professor position to begin fall 2025. Applicants must have or expect to have a Ph.D. in Computer Science or related field by the position's start date. The position is open to all areas of computer science, including

interdisciplinary areas. Ideal candidates will complement current course offerings, particularly in the systems area.

Instructions for applying to the position can be found on Interfolio: <https://apply.interfolio.com/151923>

Applications received by October 15, 2024 will receive full consideration. Applications will be reviewed on a rolling basis until the position is filled.

University of California, Riverside

Open Rank Professor of Teaching Position in Computer Science and Engineering

The Department of Computer Science and Engineering at the University of California, Riverside invites applications for multiple tenured or tenure-track faculty positions. Specifically, the department seeks applications for an

open rank of Professor of Teaching in Computer Science.

The Computer Science and Engineering Department currently has over 40 faculty members, including multiple ACM/IEEE/AAAS Fellows and Young Investigator/NSF CAREER award holders, who pride themselves in combining top-quality teaching with cutting-edge research. The research projects in the department are funded by federal (NSF, NIH, DoD) or industrial sponsors, with the new awards to the department for 2022/23 exceeding 22 million dollars. The department offers several undergraduate degrees, as well as MS and Ph.D. degrees in Computer Science, with 200 Ph.D. students currently enrolled. Information regarding the department is available at <http://www.cs.ucr.edu>.

The Marlan and Rosemary Bourns College of Engineering is a well-established, rapidly growing college at UCR. Ranked in the top 50 best public research universities for engineering by U.S. News & World Report, BCOE has over 140 faculty members, more than 3,700 undergraduate students, 1,100 graduate students, and more than \$44 million in total annual research expenditures. The college has five departments, 11 undergraduate degree programs, 10 graduate degree programs, and 11 research centers.

Successful candidates will have a proven record of or exceptional promise for developing a portfolio of high-quality teaching at the undergraduate and graduate levels, and in developing a vibrant externally-funded research program. UC Teaching Faculty are



Assistant/Associate/Full Professor - Cluster Hire in Artificial Intelligence, Inequality, and Society

The University of California, Berkeley seeks applicants for four tenure-track (Assistant Professor) positions and one tenured (Associate or Full Professor) position in the area of "AI, Inequality, and Society" (AIIS). The AIIS Cluster initiative brings together the Computer Science (CS) division of the Electrical Engineering and Computer Science (EECS) department, the departments of Sociology and Statistics, and the schools of Information and Law to address questions related to the myriad ways in which AI may reshape society and individual lives, possibly exacerbating existing inequalities and creating new ones while changing opportunity structures and participation by individuals and groups in society.

The expected start date for these positions is July 1, 2025.

For more information about the positions, including required qualifications and application materials go to: <https://apptrkr.com/5461786>

The deadline to apply is September 16, 2024. For questions, please contact: AIIS_search@berkeley.edu.

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.

expected to engage in scholarly activities and teach a regular course load at both the undergraduate and graduate levels, and participate in service activities at the department, college, campus, and professional levels. Candidates should also demonstrate clear potential for complementing and/or synergistically leveraging existing activities within the department, college, and campus.

Appointments are expected to begin on **July 1, 2025**. Salary will be commensurate with education and experience. Candidates must have met the requirements for the Ph.D. by the time of appointment. Advancement through the faculty ranks at the University of California is through a series of structured, merit-based evaluations, occurring every 2-3 years, each of which includes substantial peer input.

The posted UC salary scales set the minimum pay determined by rank and/or step at appointment. See Table(s) 3. The salary range for this position is \$103,700 - \$224,900. "Off-scale salaries" and other components of pay, i.e., a salary that is higher than the published system-wide salary at the designated rank and step, are offered when necessary to meet competitive conditions. See campus compensation page for additional information.

To apply for the position interested individuals are required to submit a cover letter, a curriculum vitae, three letters of reference or contact information for three references, a Statement of Teaching, a

Statement of Research, and a Contribution to Diversity Statement to the AP Recruit website at <https://aprecruit.ucr.edu/JPF01956>. Inquiries should be directed to search@cs.ucr.edu. For more information regarding the specific areas of interest and application procedures, please visit <http://www.engr.ucr.edu/hireme>. The review of applications will begin on **October 1, 2024**, and will continue until the position(s) are filled.

University of Chicago

Computer Science Phoenix STEM Instructional Professor

The Department of Computer Science in the Physical Sciences Division at the University of Chicago invites applications for the position of Instructional Professor (open rank). The selected candidate will be appointed as Assistant Instructional Professor, Associate Instructional Professor, or Instructional Professor, depending on qualifications. The appointment will be for a term of up to five years, renewable. This is a career-track position with potential progression, competitive salary, and benefits, with time allocated for professional development. This position is expected to begin in academic year 2025-2026.

The terms and conditions of employment for this position are covered by a collective bargaining agreement between the Service Employees International Union (SEIU) and the University.

The selected candidate will be expected to contribute to the goals of the Phoenix

STEM program, which includes increased persistence in STEM for all students, including first-generation and other historically under-represented student groups at the University of Chicago. The Phoenix STEM program will train the selected candidate to incorporate innovative pedagogical techniques, such as collaborative learning in their teaching, to help students succeed in courses in the computer science major. The selected candidate is anticipated to teach courses in introductory programming, as well as discrete mathematics, algorithms, machine learning, or systems depending on the candidate's qualifications and the department's needs. Responsibilities include teaching (average teaching load is two courses per quarter in the fall, winter and spring quarters) and non-classroom instructional or service duties as needed, such as participation in collaborative learning workshops each September.

Qualifications

Candidates must have:

- A doctorate in computer science or a related field at the time of appointment.
- At least one year of prior university-level teaching experience, such as, but not limited to, serving as an instructor of record or teaching assistant.

Application Instructions

Applications must be submitted online through the University of Chicago's Academic Jobs website: <http://apply.interfolio.com/151364>. Review of applications will begin on October 1, 2024 and will continue until all positions are filled.

The following materials are required:

- Cover letter;
- Curriculum vitae;
- Teaching statement including a description of teaching philosophy and experience. Must include a list of courses that the candidate is qualified to teach. This statement may also include the candidate's experience in teaching diverse students. (The University's Diversity Statement can be found at <https://provost.uchicago.edu/statements-diversity>);
- Syllabi of courses previously taught and/or designed by the candidate, or sample syllabi of proposed courses;
- Applicants are required to request at least three confidential letters of recommendation via Interfolio. At least one of these letters should address the candidate's teaching effectiveness.

Optional: Candidates may submit teaching evaluations.

Equal Employment Opportunity Statement

All University departments and institutes are charged with building a faculty from a diversity of backgrounds and with diverse viewpoints; with cultivating an inclusive community that values freedom of expression; and with welcoming and supporting all their members.

We seek a diverse pool of applicants who wish to join an academic community that places the highest value on rigorous inquiry and encourages diverse perspectives, experiences, groups of individuals, and ideas to inform

and stimulate intellectual challenge, engagement, and exchange. The University's Statements on Diversity are at <https://provost.uchicago.edu/statements-diversity>.

The University of Chicago is an Affirmative Action/Equal Opportunity/Disabled/Veterans Employer and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, gender identity, national or ethnic origin, age, status as an individual with a disability, military or veteran status, genetic information, or other protected classes under the law. For additional information please see the University's Notice of Nondiscrimination.

Job seekers in need of a reasonable accommodation to complete the application process should call 773-834-3988 or email equalopportunity@uchicago.edu with their request.

University of Oxford

Two Associate Professorships or Professorships of Computer Science (with Tutorial Fellowships)

Department of Computer Science, Wolfson Building, Parks Road, Oxford

Salary on the Associate Professor Scale (plus substantial benefits including college housing allowance).

As part of our expansion, the Department of Computer Science at the University of Oxford is seeking to appoint two full-time Associate Professors or Professors of Computer Science to start on 1 September 2025.

Each post is associated with a Tutorial Fellowship at Mansfield College or Oriel College. Duties will include undertaking original research in Computer Science, securing funding to support the Department's research activities, together with teaching and supervision responsibilities for the Department of Computer Science and the College, and Trustee duties (as a member of the Governing Body) at the College.

Applicants should hold a doctoral degree in Computer Science or a closely related discipline, have the ability to teach across a range of Computer Science subjects, and will also have a proven research track record of internationally high quality in Computer Science. Applicants should be able to demonstrate a high standard of research potential and achievement depending on experience, and the ability to enthuse and inspire students at both undergraduate and graduate level through tutorials, classes, lectures, and supervision.

The University of Oxford uses the grade of Associate Professor for most of its academic appointments. Appointments to Associate can include those at the start of their careers directly from PhD, as well as more established researchers.

The Department and colleges offer an exciting research and teaching environment, and an attractive financial package to the successful applicants. Please refer to the Further Particulars for details of the wider benefits package offered by the University and by each of the two colleges.

Demonstrating a commitment to provide equality of opportunity, we would particularly welcome applications from women and black and minority ethnic applicants who are currently under-represented within the Computer Science Department. **All applicants will be judged on merit, according to the selection criteria.**

The closing date for applications is 12 noon on 18 December 2024, no late applications will be considered.

Shortlisted candidates will give:

Research talks online 2-5 PM on 18-19 February 2025 (please be available both afternoons)

Teaching presentations online 2-5PM on 25-26 February 2025 (please be available both afternoons)

Interviews in person, at the Department in Oxford:

Mansfield College - 18 March 2025,

Oriel College - 19 March 2025.

For further details and to apply please visit:

<https://www.cs.ox.ac.uk/aboutus/vacancies/vacancy-faculty-hiring.html>

University of South Carolina

Bridge to Faculty Program in the Department of Computer Science and Engineering

Molinaroli College of Engineering and Computing

As part of the new Bridge to Faculty Program at the University of South

Carolina, the Department of Computer Science and Engineering seeks a faculty fellow in all related domains with special interest within the intersection of applied AI with Health Sciences, Quantum Computing, and Cyber Security to begin in January 2025. This two-year program is intended to lead to a tenure-track position in the Department.

In keeping with the University's commitment to "cultivating a more diverse, equitable, and inclusive campus where every individual has the opportunity to flourish and thrive," the Bridge to Faculty Program is designed to attract and retain promising scholars to the University of South Carolina with an emphasis on outreach to underrepresented early-career scholars. Specifically, the program seeks to recruit early-career scholars who, if successful during the program, will have the opportunity to transition to a tenure-track faculty appointment at USC at the start of the 2026-2027 academic year. As a member of the 2nd cohort of Bridge to Faculty Fellows from across the university, the Fellow will have a home in Computer Science and Engineering alongside a dynamic group of scholars. With the additional support of USC's Office of Access and Opportunity and Provost's Office, Faculty Fellows will have access to institutional resources designed to support their readiness for a tenure-track position.

The Faculty Fellow will be expected to: (1) develop a robust program of research in their area of research focus; (2) meet regularly with faculty mentors; (3) participate in professional development opportunities; (4) gradually assume

teaching responsibilities over the course of two years; and (5) participate in the intellectual life of the Department of Computer Science and Engineering and the University of South Carolina.

Qualifications: Applicants must have a PhD in Computer Science, Computer Engineering, or a related field completed between July 1, 2019, and the start date of employment (ABDs considered).

We welcome and encourage applications from scholars who contribute to increasing diversity in their fields, as historically underrepresented persons in higher education, and/or by pursuing scholarship that deepens understanding of diversity, equity, and inclusion issues within the field.

This is a 12-month research faculty appointment. Upon demonstration of academic productivity, it will be renewed for a second year, and with evidence of continued productivity, it can be converted to a tenure-track faculty position in the third year. Salary is competitive, and the position includes a generous benefits package with access to medical, vision, dental, and life insurance.

Applicants must apply online at USCJobs at <https://uscjobs.sc.edu/postings/161187>.

Applications should include: a cover letter; a CV; a writing sample (25 pages maximum); and the names and email addresses of three recommenders, who will be prompted to submit letters of recommendation directly. (If the candidate has not yet defended their dissertation, the letter from the dissertation director

should confirm that the PhD will be completed by January 1, 2025). Application review will start October 1, 2024, and will continue until the position is filled. If you have any questions about the position or the application process, please contact Dr. Homayoun Valafar, Search Committee Chair, homayoun@cse.sc.edu.

The CSE Department is designated by the National Security Agency and the Department of Homeland Security as a National Center of Academic Excellence in Information Assurance and Cyber Defense Education and Research. In addition, the Molinaroli College of Engineering and Computing has recently joined the IBM Quantum Hub, a worldwide community of leading Fortune 500 companies, startups, academic institutions, and national research labs working with IBM to advance quantum computing.

The Department offers B.S. degrees in Computer Science, Computer Information Systems, and Computer Engineering, M.S. and Ph.D. degrees in Computer Science and Computer Engineering, and a Graduate Certificate in Cyber Security Studies. The Department has 24 full-time faculty members (10 NSF CAREER award recipients), an undergraduate enrollment of approximately 1000 students, a graduate enrollment of 175 students, and over \$3.5 million in annual research expenditures.

At the University of South Carolina, we strive to cultivate an inclusive environment that is open, welcoming, and supportive of individuals of all backgrounds. We recognize diversity in our workforce is essential to providing

academic excellence and critical to our sustainability. The University is committed to eliminating barriers created by institutional discrimination through accountability and continuous process improvement. We celebrate the diverse voices, perspectives, and experiences of our employees.

The University of South Carolina does not discriminate in educational or employment opportunities or decisions for qualified persons on the basis of age, ancestry, citizenship status, color, disability, ethnicity, familial status, gender (including transgender), gender identity or expression, genetic information, HIV/AIDs status, military status, national origin, pregnancy (false pregnancy, termination of pregnancy, childbirth, recovery therefrom or related medical conditions, breastfeeding), race, religion (including religious dress and grooming practices), sex, sexual orientation, veteran status, or any other bases under federal, state, local law, or regulations.

Williams College

Assistant Professor and Open-Rank Positions in Computer Science

The Department of Computer Science at Williams College invites applications for two tenure-track faculty positions, one at the assistant professor level and one open-rank, beginning July 1, 2025. The Assistant Professor position is a tenure-track position. The rank and initial term of the open-rank position will be determined by the qualifications of the successful candidate. We welcome candidates from

all areas of computer science who can contribute to the vibrancy of our academic community through their research, teaching, and service for both positions. Williams College is committed to fostering a diverse and inclusive academic community. We strongly encourage candidates from under-represented identities, including women, people of color, LGBTQ+ individuals, and others who will contribute to the diversification and enrichment of ideas and perspectives, to apply.

Successful candidates will join the department's thirteen current faculty in supporting a thriving undergraduate computer science major at a top-tier liberal arts college. Candidates should have a commitment to excellence in teaching and research, and should, by September 2025, possess a Ph.D. in computer science or a closely related discipline. The teaching load typically consists of three semester-long courses per year, with associated labs, spread over the fall and spring semesters.

The Department of Computer Science offers a congenial working environment, an excellent and diverse student body, and state-of-the-art facilities supporting both teaching and research. Many opportunities exist for collaboration both within computer science and across disciplines. For more information about the department and faculty, please visit <http://www.cs.williams.edu>. Williams offers faculty participation in the college's professional development program First3 and in various programs offered by NCFDD, and support through the Rice Center for Teaching.

Professional Opportunities

Applications should include a cover letter, curriculum vitae, and teaching and research statements. The application materials should also address how the candidate's teaching, scholarship, mentorship and/or service activities would support a student population that is broadly diverse with regard to gender, race, ethnicity, nationality, sexual orientation, and religion. Candidates who advance in the pool will be asked to provide three letters of reference. Application materials must be submitted electronically through Interfolio at <https://apply.interfolio.com/148956>. Materials may be addressed

to Professor Jeannie Albrecht, Chair, Department of Computer Science.

Completed applications received by November 8, 2024, will receive full consideration, and review of applications will continue until the position is filled. The search committee plans to conduct video conference interviews with semi-finalists in November and December, followed by on-campus interviews with finalists in December and January. Please direct all correspondence to cshiring@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 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.