CRN At-A-Glance

Computing Researchers Make the Case for Intelligent Infrastructure at Congressional Briefing

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2018 CRA Conference at Snowbird Program Update

The program for the 2018 CRA Conference at Snowbird has recently been updated. A third plenary session will consist of a panel on "Diversity in Computing Leadership" chaired by Carla Brodley; current confirmed participants include Shinder Dhillon, Head of Global Diversity & Inclusion - Engineering & Corporate Functions, Microsoft, Brian Reaves, Chief Diversity and Inclusion Officer, Dell, Inc., and Ayanna Howard, Chair, School of Interactive Computing at Georgia Tech. *See page 5 for full article.*

In This Issue

CRA Board Elections in Progress

Ballots have been distributed to all CRA department chairs and lab directors. Each will have one vote for each open slot on the board. Completed ballots are due February 28. Click **here** for the slate of nominees.

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Computing Researchers Make the Case for Intelligent Infrastructure at Congressional Briefing

By Peter Harsha, CRA Director of Government Affairs

On a day when President Donald J. Trump was expected to use his State of the Union address to unveil his administration's plans for nationwide infrastructure investment, a panel representing computing researchers in academia and industry told a group of congressional staffers and other stakeholders that while those infrastructure needs are critical, it would be short-sighted to simply replicate more of what we have. Instead, they urged, now we have an opportunity to invest in the research and make progress on the policies that would allow for an "intelligent infrastructure" that would provide a foundation for increased safety and resilience, improved efficiencies and civic services, and broader economic opportunities and job growth.

From left to right: Dan Lopresti, Henning Schulzrinne, Matt Wansley, Nadya Bliss, Elizabeth Mynatt participate in a congressional briefing on Intelligent Infrastructure Research.

The panel — led by moderator Dan Lopresti, Chair of the Department of Computer Science at Lehigh University, along with Henning Schulzrinne of Columbia (and former CTO of the Federal Communication Commission); Matt Wansley, General Counsel for nuTonomy, a startup focused on autonomous vehicle technologies; Nadya Bliss, the Director of the Global Security Institute at Arizona State; and Beth Mynatt, Director of the Institute for People and Technology at Georgia Tech — highlighted the promise of the technologies that will enable more intelligent infrastructures, but also noted critical gaps

Henning Schulzrinne, of Columbia University, addresses the attendees of the Capitol Hill briefing.

and barriers to successful deployments. The briefing was sponsored by CRA, along with honorary co-hosts Rep. Lamar Smith (R-TX), Chair of the House Science, Space and Technology Committee, and Rep. Eddie Bernice Johnson (D-TX), Ranking Member of the House Science, Space and Technology Committee.

Intelligent infrastructure is the deep embedding of sensing, computing, and communications capabilities into traditional urban and rural physical infrastructures such as roads, buildings, bridges, pipelines, water and electric distribution systems for the purpose of increasing efficiency, resiliency, and safety. Intelligent infrastructure has a wide range of applications, including transportation, energy management, public safety and security, disaster response, agriculture, and health.

"The scope of the transformation we are facing is truly unprecedented," Lopresti noted. "It's hard to find proper comparisons, but intelligent infrastructure is likely to have an impact on our society

comparable to the establishment of the national electrical grid in the 1930s, the interstate highway system in the 1950s, and the Internet in the 1960s. Indeed, intelligent infrastructure can be viewed as the convergence of these three very powerful ideas."

Matt Wansley, of the company nuTonomy, addressed issues of robustness and interoperability.

But the panel pointed out a rich set of research problems that require solving to truly realize the benefits of intelligent infrastructures along four foundational areas. Schulzrinne discussed the need for resiliency and adaptability in these sorts of systems, the ability of the infrastructure

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Nadya Bliss, of Arizona State University, addressed issues of security and trustworthiness.

to cope with extreme or unexpected circumstances — for example, when wireless communications are subject to natural disasters on the scope of Hurricane Maria that devastated Puerto Rico. He noted the lessons we are learning from Maria — which knocked out 95 percent of all cell sites and many telephone switches — point to the need for more resilient communications infrastructures. "Research is needed to develop and prototype novel networking architectures that support a minimal level of communications, for example, using pre-deployed mesh and opportunistic solar-powered store-and-forward networks, for both first responders and the public. Self-configuring 'autonomic' networks can recover capabilities without the need for experts."

Wansley added an industry perspective to the discussion, noting the importance of solving problems of robustness and interoperability to successful deployments of vehicle-to-infrastructure (V2I) communications that would add tremendous value to communities with autonomous vehicles. V2I would not only

enable autonomous cars to pull information from the existing infrastructure — the color of the traffic signal, the state of traffic ahead, the extent of construction zones on the route — but also push it back into the infrastructure for the benefit of all users. "Intelligent infrastructure is a textbook example of a positive externality," he said. But getting there will require that the companies developing autonomous vehicles, and the consumers who ride in them, must be able to rely on the infrastructure — and that will require more fundamental work in the understanding how to build in robustness and interoperability in these system. This is work that's perhaps best suited to university-led research fueled by Federal investment, he noted, as there are not sufficient market incentives for large corporations to make such V2I networks open and usable widely.

This need for access and usability was amplified by Mynatt, who noted that ensuring the availability of open and curated data produced by these systems is key to communities benefitting from them (and not just industry). "Too often the data collected by these systems, whether it's from smart trashcans that know they are full, to traffic data at intersections, is held by that company," she said. "While municipalities may gain specific capabilities, such as knowing when to empty the trash, they lose the opportunities to use the data in new ways, ranging from informing real estate development to public health. Many of these 'secondary uses' of data are not in the bailiwick of technology companies but

stand to make profound contributions to the quality of life in these communities."

In addition to forward looking data platforms and policies to spur open innovation, Mynatt also discussed two other gaps that stand to prevent communities from reaping the economic rewards of infrastructure investments: productive access to broadband capabilities and innovating systems for effective training and job creation. She noted that broadband access in rural communities is often constrained by last mile problems, which might be met by combining wired and wireless connectivity. Similarly, meeting the needs of rural agriculture might require "flipping the cloud", recognizing that agricultural users are not simply consumers of content, but potentially generate large volumes of data about their own farms, which might best be addressed by having more computation available to them on the "edges" of the internet nearest them, rather than pushed back up to some central cloud through a constrained pipe. These challenges also highlight the need to have a workforce trained to work with (and on) these new infrastructures.

Elizabeth Mynatt, of Georgia Tech, addresses the attendees of the Capitol Hill briefing.

An attendee of the Congressional briefing poses a question to the panel.

Trustworthiness, security and privacy are challenges for just about any deployment of intelligent infrastructure, and Bliss discussed a number of potential approaches to meeting those challenges — like homomorphic encryption and differential privacy — that are or will become viable with research. But she was emphatic that if policymakers take to heart only one thing from her talk, let it be "security can no longer be an afterthought."

"Investment in intelligent infrastructure creates much opportunity for our nation," she said. "As we build this new internet of useful things, we can build in security, trustworthiness, and privacy from the start. The cost of not doing so given the physical nature of these systems (vehicles, energy plants, bridges, roads) would just be too high."

Common across all the panelist's presentations was a recognition that the infrastructure for handling, processing, and analyzing data is crucial. "At the same time, there is a tension between data privacy, integrity, and openness that we do not yet know how to navigate," Lopresti said. "We need more research, and more infrastructure that enables that research, to solve these challenges." He also noted that the nation is well-positioned to take on this research. Indeed, more than a dozen Federal agencies are already supporting work in these areas. These include NSF, NIST, the Department of Homeland Security, Department of Energy, and the Department of Transportation. "But also the Department of Defense, Health and Human Services, the US Geological Survey, and even the Census Bureau. Bolstering support for intelligent infrastructure research through these Federal funding agencies will reap enormous dividends."

The briefing was well-attended and generated good discussion both in the question and answer period and in follow-up conversations with congressional staff. We'll keep you apprised of developments as the Administration's infrastructure proposal begins its march through the legislative process.

In the meantime, you can read the "one-pager" from the briefing, or check out some additional resources, including white papers produced by the computing community on various aspects of intelligent infrastructure research.

CRA CONFERENCE 2018 at snowbird

July 16-18

CRA — Computing Research Association

PROGRAM UPDATE

This year at Snowbird:
The program for the 2018 CRA Conference at Snowbird has recently been updated. Plenary sessions will feature former CRA Board Chair David Patterson, Professor Emeritus, University of California-Berkeley and, Distinguished Engineer, Google, and Raquel Urtasun, Associate Professor, University of Toronto and Head, and Uber Advanced Technologies Group, Toronto. A third plenary session will consist of a panel on "Diversity in Computing Leadership" chaired by Carla Brodley. The confirmed participants include Shinder Dhillon, Head of Global Diversity & Inclusion - Engineering & Corporate Functions, Microsoft, Brian Reaves, Chief Diversity and Inclusion Officer, Dell, Inc., and Ayanna Howard, Chair, School of Interactive Computing at Georgia Tech.

As in prior conferences, there will also be a "Making a Federal Case for Computing" plenary session led by CRA Director of Government Affairs Peter Harsha.

Parallel session topics (see next page) include approaches to increasing diversity, faculty recruiting, department rankings, new models for industrial research in CS, and a session on "Using CRA Data to Improve Your Department and Inform Decision Making" co-chaired by Jane Stout, CRA's director of the Center for Evaluating the Research Pipeline, and Betsy Bizot, CRA Director of Statistics and Evaluation. The conference will also feature short after-dinner talks on future directions in computing research, which are organized by the Computing Community Consortium (CCC).

A preliminary program is below. It will be updated on the CRA website as additional information becomes available. There will be several hours of free time for networking, mingling, hiking, or hanging out and enjoying the gorgeous environment.

Online registration will open on the CRA website in April 2018.

Please note: The conference will start on a Monday, which is a variation from past conferences which started on a Sunday.

In addition to the conference, a workshop for new department chairs will be co-chaired by Greg Hager, Johns Hopkins University, and Andrew Sears, Penn State, on July 16.

*blue text indicates updated information

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Monday, July 16

| 3:00 – 5:45 pm | **New Chairs Workshop**
This workshop will give new CS department chairs some of the skills needed to lead their organizations and work with deans, provosts, and advisory boards - the stuff they never told you in graduate school. |
| 6:00 – 7:00 pm | **Welcome Reception** |
| 7:00 – 9:00 pm | **Dinner/Plenary Session** |

Tuesday, July 17

8:30 am – 10:00 am	**Plenary Session**
10:30 am – noon	**Parallel Tracks**
Noon – 1:30 pm	**Lunch**
1:30 – 3:00 pm	**Parallel Tracks**
3:30 – 5:00 pm	**Networking Activities**
6:30 – 9:00 pm	**Dinner**
After Dinner Research Talks
Organized by the Computing Community Consortium

Wednesday, July 18

8:30 – 10:00 am	**Plenary Session**
10:30 – Noon	**Parallel Tracks**
Noon – 1:30 pm	**Lunch**
1:30 – 3:00 pm	**Parallel Tracks**
3:30 – 5:00 pm	**Policy Session (Chair: Peter Harsha, CRA)**
5:30 – 6:30 pm	**TBD**

Parallel Session Topics

- Increasing Diversity in Computing is Easier Than You Think: 10 Small Steps that Make a Big Difference
  Chair: Mary Hall, University of Utah

- **Diversity in Research Conferences: Spotlight and Brainstorming Solutions**
  Co-chairs: Kim Hazelwood, Facebook, and Margaret Martonosi, Princeton University

- Diversity in CS Research Leadership
  Co-chairs: Kim Hazelwood, Facebook, and Margaret Martonosi, Princeton University

- Booming Faculty: Opportunities and Challenges
  Chair: Laura Haas, University of Massachusetts – Amherst

- New Models for Industrial Research in CS
  Co-chairs: Brent Hailpern, IBM and Joe Sventek, University of Oregon

- Growing a CS Department into a School/College of Computing
  Chair: Chris Johnson, University of Utah

- Department Rankings
  Chair: H.V. Jagadish, University of Michigan

- Improving Faculty Recruiting in the Computing Community
  Co-chairs: Shashi Shekhar, University of Minnesota and Josep Torrellas, University of Illinois, Urbana-Champaign

- Using CRA Data to Improve Your Department and Inform Decision Making
  Co-chairs: Jane Stout, CRA and Betsy Bizot, CRA

- Recruiting, Retaining, and Advancing Teaching Faculty
  Co-chairs: Dan Grossman, University of Washington and Penny Rheingans, University of Maryland Baltimore County

Michael Ernst and Catherine Putonti Receive the 2018 CRA-E Undergraduate Research Faculty Mentoring Award

The Education Committee of the Computing Research Association (CRA-E) is proud to announce two recipients of the 2018 CRA-E Undergraduate Research Faculty Mentoring Award: Michael Ernst from the University of Washington in Seattle and Catherine Putonti from Loyola University in Chicago.

These outstanding individuals are being recognized for providing exceptional mentorship, undergraduate research experiences, and, in parallel, guidance on admission and matriculation of their students to research-focused graduate programs in computing.

The 2018 selection committee includes Chandra Krintz (University of California, Santa Barbara), Pat Morreale (Kean University), Denys Poshyvanyk (William & Mary), and Barbara Ryder (Virginia Tech, committee chair).

Michael Ernst

Michael Ernst, Ph.D., is a professor of computer science at the University of Washington in Seattle (UW), a Fellow of the ACM, and an NSF CAREER award winner.

Ernst is an accomplished researcher. Over the past decade he has authored eight best or distinguished papers at major conferences in programming languages and software engineering such as FSE, ISSTA, FSE, and ECOOP.

A champion of undergraduate research, Ernst has an exceptional mentorship record that spans multiple institutions, projects, and high-quality publications. He is typically described as a caring and careful mentor who is selfless, patient, quality-driven, and student-focused. Impressively, more than 60 of his 123 undergraduate mentees have attended graduate school in computer science. He has also co-authored 51 publications with his mentees. His students have become faculty members at universities such as Harvard, University of Massachusetts and University of California, San Diego. One commented, "I strive to use as much of prof. Ernst's mentoring style in my own advising as I can."

Ernst's extraordinary mentoring has produced a broad impact. He has built a research environment that is collaborative, welcoming to undergraduates, and mindful of teaching graduate students, postdocs, and other faculty on how to successfully work with undergraduates. He has adopted state-of-the art research tools to be used in undergraduate classes and has included research explorations in undergraduate project classes. His "Advice for researchers and students" UW webpage is used by UW faculty and undergraduate advisors as well as many members of the CS community.

Catherine Putonti

Catherine Putonti, Ph.D., is an associate professor in the Departments of Computer Science and Biology at Loyola University Chicago as well as in the Department of Microbiology and Immunology in the Stritch School of Medicine. She is also director of the interdisciplinary bioinformatics program and an NSF CAREER Award winner. According to a colleague, Loyola is an institution "where undergraduate students do the bulk of the lab work for principal investigators." In 10 years, Putonti was awarded two university awards for excellence – the Sujack Master Researcher Award and the Sujack Teaching Excellence Award. She is the only faculty member in the College of Arts and Sciences of Loyola to recently receive both of these honors.

Putonti has successfully mentored 45 undergraduate students since spring 2008, and 16 of these students have continued to graduate school in computer science, bioinformatics, or computational biology. Her "top in department" placement of students at outstanding graduate programs across the country and across disciplines is exceptional, with students gaining admission to schools such as University of Chicago, Johns Hopkins University, University of North Carolina at Chapel Hill, and Stanford University.

Putonti hosts up to a dozen undergraduate research students in her two labs, one a molecular biology lab and the other a computational lab, annually. She actively encourages her mentees in their work (even beyond graduation), and reviews their applications for funding, awards, graduate admission, and scientific publication. One mentee remarked that "Dr. Putonti truly strikes a magical balance between having a structured research environment and encouraging independence and creativity from her students in research."

Which Departments Most Often Nominate Students for the CRA Outstanding Undergraduate Researchers Award?

By Ran Libeskind-Hadas, Harvey Mudd College

The **CRA Outstanding Undergraduate Researcher Awards** recognize students at North American colleges and universities who have demonstrated excellent research potential. CRA bestows four awards each year, and a number of students are recognized as runners-up, finalists, and honorable mentions.

In addition to honoring exceptionally successful students, these awards identify some of the departments that are particularly effective at cultivating and promoting undergraduate research.

A total of 94 colleges and universities have nominated students during the last three years.

These nine schools have nominated students in each of the last three years:

- Columbia University
- Harvard University
- Harvey Mudd College
- Mount Holyoke College
- Princeton University
- Tufts University
- University of California, Berkeley
- University of Maryland, College Park
- University of Washington

These 14 schools have nominated students in two of the last three years:

- Arizona State University
- Boston University
- Cornell University
- Dartmouth College
- Haverford College
- Northeastern University
- Rutgers University
- University of Alabama
- University of British Columbia
- University of Illinois at Urbana-Champaign
- University of Minnesota
- University of North Carolina at Chapel Hill
- University of Rochester
- University of Virginia

One member of the selection committee remarked that "[I]t's exciting to see excellent undergraduate research taking place at colleges and universities large and small, and it is gratifying to be able to recognize a substantial number of these students with awards, runners-up, finalists, and honorable mentions."

We thank the many departments and faculty members who continue to do excellent work in mentoring undergraduate researchers. Please consider nominating students in the next competition, which will be announced in late summer 2018. The nomination deadlines are in late October.

CRA-E also has a separate award that recognizes faculty members for their outstanding mentoring of undergraduate researchers. The recipients of the 2018 CRA-E Undergraduate Research Faculty Mentoring Awards were recently announced here. Nominations will be due in late November.

Expanding the Pipeline: CAHSI Broadens Hispanics' Participation in Computing

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By Ann Q. Gates and Enrico Pontelli

The Computing Alliance for Hispanic-Serving Institutions (CAHSI) is a consortium of Hispanic-serving institutions (HSIs) committed to consolidating the strengths, resources, and efforts of public, private, federal, state, and local organizations that share the core value of increasing the number of Hispanics who pursue and complete baccalaureate and advanced degrees in computing areas. CAHSI plays a critical role in evaluating, documenting, and disseminating effective practices that support students in computing disciplines at the critical junctures in the academic pipeline. This includes the transition from high school to college, from community college to 4-year programs, from college to graduate school, and from graduate school to the professoriate. CAHSI initiatives and practices actively engage students in learning experiences, prepare them to succeed in STEM courses and assume leadership roles, and develop skills required for research and cooperative team work. Above all, CAHSI mainstreams mentoring and the building of structured academic networks for students that are inclusive and prepare them for success in coursework from entry level through graduate school and, thereafter, into the STEM workforce. CAHSI has built a pedagogical and intellectual community to support student success in its departments, and has created human infrastructure to support its initiatives by training faculty at member institutions in effective evidence-based practices. CAHSI provides ongoing support, resources, and materials through its website (http://cahsi.org), regular dissemination events (e.g., the CAHSI Summit), and interactions among CAHSI members.

CAHSI draws strength from HSIs in six states – California, Florida, Illinois, New Mexico, Texas, and, recently, New Jersey – and the Commonwealth of Puerto Rico, all of which have some of the largest Hispanic populations in the U.S. CAHSI's shared aspiration is to reach 20 percent or more representation of Hispanics who earn formal credentials in computing by 2030. CAHSI aims to grow and sustain a networked community committed to recruiting, retaining, and accelerating the progress of Hispanics in computing. CAHSI's common goals are to: 1) challenge students' knowledge, skills, and abilities so that they are positioned to thrive in the workforce, 2) support pedagogical and professional growth for those who can impact Hispanics, 3) expand meaningful partnerships that align with strategic regional and national efforts, and 4) inform policy through evidence.

CAHSI recognizes the importance of unifying efforts to address the complex problem of the low representation of Hispanics in higher education and, in particular, the need to change how we educate, engage, and prepare our students to succeed in the labor market. The rate of change is too slow, and the nation must accelerate the change if we are to meet the technological demands and ensure the necessary diversity and richness of our workforce. CAHSI posits that change cannot occur without the integration and coordination of deliberate efforts by industry, government, and nonprofits to increase Hispanics in computing and STEM. Indeed, a collective effort is imperative. CAHSI adopted a collective impact approach in 2016 through an NSF INCLUDES funded project. Achieving large-scale impact (Hanleybrown, 2012; Cabaj & Waters, 2016) requires

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defining shared aspirations, increasing cross-sector alignment and learning among organizations, defining high-leverage activities, establishing common measurements, and sharing lessons learned. Working with industry and nonprofits, CAHSI has established a pedagogical and intellectual community and created the infrastructure to both accelerate student success and link computing to social good.

This following sections present an example collective important effort and efforts being piloted at two CAHSI institutions, New Mexico State University (NMSU) and University of Texas at El Paso (UTEP), to accelerate impact.

CAHSI's Collective Impact Efforts

In collaboration with Google, UTEP, NMSU, and California State University-Dominguez Hills (CSU-DH) have been working to develop three one-credit hour courses in problem solving. The intent of the courses is to connect students to departments early in the program and to be more deliberate in applying an approach to solving problems, a skill that is valued by employers. Over six weeks, the three institutions met with Google experts to review the content of the courses and identify problems. In addition, students presented their sample artifacts developed during the courses to Google. Early assessment of the courses has shown high levels of satisfaction by students and a shift in how students view and think about problem solving (i.e., the process of problem solving rather than solving problems by brute force). In interviews with students, students expressed how they valued the opportunity to meet with professionals and the experience of working as a team to solve problems. One

student noted: "My favorite part of the class was having open discussions about the various solutions we came up with. I felt comfortable asking questions and offering solutions." Another student recounted how the course provided tools that could be used in other courses.

The beginner course uses MIT's IDEAL approach (Bradford & Stein, 1993) to provide students with a concrete approach to solving problems that are not computing based. Students learn how to break down a problem, identify resources needed to solve the problem, ask clarifying and probing questions to improve understanding of the problem, rephrase a problem to demonstrate understanding, assess potential solutions, articulate an approach to solve the problem, and reflect on the process and solution and identify ways to improve. The second course provides a computational thinking approach to solving problems.

The intermediate problem-solving course involves formulating problems in a manner that enables the use of computers and related tools to find a solution. The course uses the IDEAL and computational thinking approaches.

> **Communities are strengthened when organizations encourage and support diversity. Often times, groups of people, like welfare recipients, elders, youth, and minorities, are marginalized and not recognized as contributing citizens within their community. –Kretzmann, McKnight et al, 2005.**

Students build upon their problem-solving skills to address complex real-world problems. Students develop the ability to break down complex problems, identify reusable modules, and build solutions using a bottom-up method.

The advanced course is suitable for students who have already completed data structures. It adopts McKinsey's seven-step problem-solving model to formalize the problem-solving process, thus allowing a greater depth in the formalization and analysis of the problem and its solution. The course also integrates problem solving with the learning of various

Linux tools (e.g., basic shell scripts, various Linux commands, and awk). Each week of the course is articulated in two meetings. The first meeting presents a problem in vague and often conflicting terms, and allows students, in teams, to brainstorm and develop sequences of questions to clarify the problem requirements. The second meeting lets the teams to present their solutions, critique them in a studio-style setting, and converge on an optimal solution to the problem. Another version of the advanced problem-solving course is focused on problem solving for coding interviews.

Other Student-Supportive Efforts

Through the NSF Revolutionizing Engineering Education program, UTEP's CS department is developing a model of change based on asset-based approaches. The intent is to create an environment that motivates, connects, and immerses students from diverse backgrounds throughout their plan of study. It also seeks to motivate faculty to foster a capacity-building framework that reinforces practice-based learning. The consideration for curriculum reform is driven by a desire to prepare culturally and linguistically diverse students to lead in a globalized workforce.

Using an asset-based approach (Kretzmann & McKnight, 1993), UTEP's CS department has examined physical spaces (e.g., places where students, faculty, and students and faculty meet, learn, conduct research, and relax), networked connections and associations (e.g., centers, partnerships, internships, and student organizations) that can support faculty and student professional development, and individual assets (e.g., knowledge, gifts, traits, skills, and capacities of faculty and students) to mobilize change centered on student success. Asset-based teaching and learning recognizes students' linguistic and cultural strengths and

how they can contribute to learning new knowledge, content, and practice. New departmental practices use an asset-based approach to create inclusive environments. Asset-mapping approaches can be used to reflect on the assets and how they relate to student success. With these efforts in incorporating inclusive environments, the department has engaged faculty, as a collective, to create a survey to better understand students' experiences and engagement, as well as analyzing the data to identify strategic actions.

The Young Women in Computing (YWiC) program at NMSU was launched in 2006 and focuses on exploring, evaluating, and disseminating evidence-based practices to promote the participation of women in computing-related disciplines. The program spans a broad range of grades, from fifth grade to college seniors, and builds on the following core values: (1) development of social capital, through the creation of group identity, sense of belonging, and a broad network of support (e.g., peers, family members, and community leaders); (2) development of self-efficacy through mastery experiences, providing female students with experiences that are beyond what male peers would have typically gained; (3) development and reinforcement of positive images and

positive role models, with an emphasis on peer and almost-peer role models; (4) exploration of computing in the context of its relevance to creativity and the solution of problems of societal importance. Over the last 11 years, the program has reached more than 15,000 students, provided professional development to several dozens of teachers, and laid the foundation for an increase of women in the NMSU computer science department from 8 percent in 2006 to 24 percent in 2010.

Looking Ahead: Challenges and Opportunities

The activities performed by CAHSI have highlighted several challenges and opportunities. Computer science programs at Hispanic-serving institutions, just like many non-minority serving schools, have witnessed a rapid growth in enrollment at the undergraduate level. At the national level, the increase in enrollment has not significantly impacted the diversity in the student population. According to the CRA Taulbee survey, the percent of Hispanic students enrolled in Bachelor's CS programs over the last four years has remained about 7 percent. Of CAHSI's charter members, five departments have CS growth rates among majors ranging from 10 to 25 percent per year from 2013 to 2016, and two departments have experienced more modest increases.

CAHSI degree production has increased, and compares favorably in growth particularly this year, where CAHSI produced 158% of the degrees produced in 2002. The comparison departments in an IPEDS dataset have only reached 72% of the 2002 peak. CAHSI also compares favorably in terms of the production of Hispanic computing degrees when compared to all HSIs in the IPEDS database—while CAHSI departments graduate 46% Hispanic students in mainland U.S. departments, the mainland US HSIs as a whole have a much less desirable record of production with only 24% Hispanic computing degree production.

Hispanic students are not traditional students who start a program and complete it in four years. A 2013 CRA survey from the Data Buddies program revealed that 50 percent of students at CAHSI institutions (n=255) worked full-time and 53 percent were first-time college students. CAHSI students' backgrounds reflect trends of undergraduate students across the nation—they are increasingly beginning their studies in community colleges, are more likely to be ethnically diverse, and are working part- or full-time, to a greater extent, to support their educational pathways. Economic hardships cause almost a quarter of CAHSI students to stop out (i.e., suspend their studies) (Gates, Thiry, & Hug, 2016).

About the Authors

Dr. Ann Quiroz Gates is an AT&T Professor and Chair of the Computer Science Department and past Associate Vice President of Research and Sponsored Projects at the University of Texas at El Paso. Gates directs the NSF-funded Cyber-ShARE Center of Excellence, which was established in 2007 with a mission to advance and integrate cyber-enhanced, collaborative, and interdisciplinary education and research. She leads the Computing Alliance for Hispanic-Serving Institutions (CAHSI) and is a founding member of the National Center for Women in Information Technology.

Dr. Enrico Pontelli is a Regents Professor of Computer Science and Dean of the College of Arts & Sciences at New Mexico State University. He directs the interdisciplinary Center for Research Excellence in Design of Intelligent Technologies for Smartgrids (iCREDITS), established in 2014 to promote interdisciplinary teaching and research in the field of smartgrids and smart energy management. He serves in the leadership team of CAHSI and is the founding director of the Young Women in Computing Program. He is an active researcher in the fields of computer science education, artificial intelligence and assistive technologies.

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Over the years, CAHSI has consistently provided extensive support to students throughout their degree programs. The number of CAHSI students enrolled in CS-0 courses increased in 2016 from 449 to 902 students, possibly reflecting the growth in undergraduate enrollments in CAHSI departments. CAHSI's representation of women in two of its signature initiatives rises above the national average of women undergraduates in computer science. Nearly one-quarter of the participants in CAHSI initiatives were women and female participation in CS-0, PLTL surpassed the national average of 17% in CS/CIS (Thiry & Hug, 2017).

The departments from CAHSI institutions are dedicated to student success and have instituted support systems within their departments to bolster student retention. CAHSI now serves as a resource for institutions and organizations who seek to learn and adopt CAHSI practices and recruit CAHSI graduates. Indeed, students who graduate having balanced work with their studies and family enter the labor market with higher work ethics, maturity, and teamwork skills.

Acknowledgements

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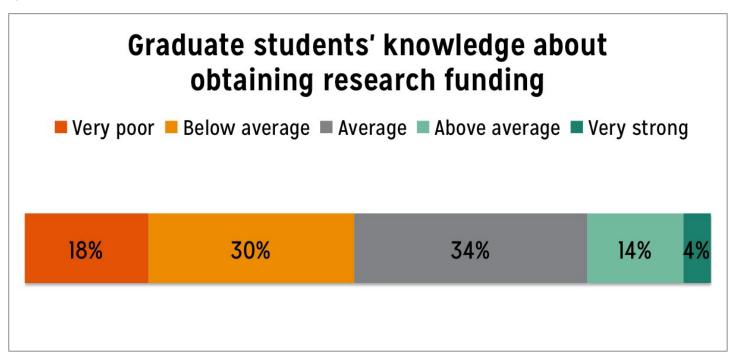Villa, E., Gates, A., Kephart, K., Hug, S., Kretzmann, P. & McKnight, J. L. (1993). *Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community's Assets.* ACTA Publications.

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Nearly Half of Graduate Students in Computing Programs Believe They Have Below Average Knowledge About How to Obtain Research Funding

CERP
Computing Research Association
Evaluation

By Jane Stout, CERP Director

Graduate students' knowledge about obtaining research funding

■ Very poor ■ Below average ■ Average ■ Above average ■ Very strong

| 18% | 30% | 34% | 14% | 4% |

CERP found that nearly half of graduate students in computing degree programs surveyed in 2016 indicated they were not very knowledgeable about how to obtain research funding. Of note, this trend occurred among Ph.D. students as well as Terminal Master's students: 45 percent of Ph.D. students and 52 percent of Terminal Master's students indicated below average knowledge in this area. This finding suggests advisors and departments should spend more time working with students on this professional development skill.

The CRA provides resources to help individuals learn about how to obtain research funding. For instance, the CRA-W's resources page provides information on research funding strategies and funding opportunities in computing science. The CRA also holds a biennial Career Mentoring Workshop, which often covers topics related to writing grant proposals.

Notes:

In 2016, CERP collected data from 3,857 graduate students enrolled in computing programs at a sample of U.S. universities via the Data Buddies Project. Forty-four percent of the sample was Terminal Master's students and 56 percent of the sample was Ph.D. students. *N* = 3,391 students responded to the question: *How would you rate your knowledge of each of the following, from very poor to very strong? Obtaining funding for research… (1) very poor to (5) very strong.*

CERP
Computing Research Association
Evaluation

This analysis is brought to you by the CRA's Center for Evaluating the Research Pipeline (CERP). CERP provides social science research and comparative evaluation for the computing community. To subscribe to the CERP newsletter, click here.

Thank You, Data Buddies!

By Jane Stout, CERP Director

The CRA wishes to thank the computing departments who distributed CERP's Data Buddies survey during the fall of 2017. These departments' collective effort provided vital data for CERP's research and evaluation assessing students' varied experiences in computing degree programs.

Special thanks to the 34 elite Data Buddies departments, who obtained at least a 20 percent response rate from their students! These high-performing institutions are:

Baldwin Wallace University
Beloit College
Bethune-Cookman University
Boise State University
Boston University (Bioinformatics Department)
Calvin College
Carnegie Mellon University
Colorado School of Mines
Davidson College
Drew University
Drexel University
Eastern Washington University
Grinnell College
Harvey Mudd College
Illinois Wesleyan University
Kean University
Northeastern University
St. Mary's College of Maryland
Tufts University
University of Alabama
University of Central Florida
University of Illinois at Chicago
University of Michigan-Flint
University of North Carolina at Chapel Hill
University of Notre Dame
University of Pennsylvania
University of Pittsburgh
University of Puerto Rico-Mayagüez
Wayne State University
Wellesley College
Western Washington University

Whitman College
Winston-Salem State University
Yale University

And a big thank you to the rest of the Data Buddies departments who distributed CERP's surveys to students!

Arizona State University
Augustana College
Boston University (Computer Science Department)
Brown University
California State University-Long Beach
Clemson University
Columbia University
Connecticut College
Cornell University
Duke University
Fisk University
George Mason University
Georgia Institute of Technology
Harvard University
Johns Hopkins University
Miami University-Oxford
Montana State University
Morehouse College
Mount Holyoke College
New Mexico State University-Main Campus
New York University-Polytechnic School of Engineering
Oberlin College
Princeton University
Purdue University
Radford University
Rensselaer Polytechnic Institute
Rochester Institute of Technology
Rutgers University-New Brunswick Campus

SUNY College-Plattsburgh
Texas A&M University
Texas State University
The College of New Jersey
The Ohio State University
Union College
University of California-Berkeley
University of Northern Iowa
University of Colorado-Boulder
University of Florida
University of Hawaii-Hilo
University of Houston
University of Illinois-Springfield
University of Illinois-Urbana Champaign
University of Maryland-Baltimore County
University of Maryland-College Park
University of Massachusetts-Amherst
University of Michigan-Ann Arbor
University of Minnesota-Twin Cities
University of Nebraska-Kearney
University of Nebraska-Lincoln
University of North Carolina-Charlotte

University of Puget Sound
University of Rochester
University of South Carolina-Columbia
University of South Florida-Main Campus
University of Texas-Austin
University of Texas-Dallas
University of Toronto
University of Utah
University of Washington
Virginia Tech
Washington and Lee University
Washington University-St Louis
Western Oregon University
Worcester Polytechnic Institute
Youngstown State University

Is your department listed? If not, help the computing community by volunteering your department to become a Data Buddy today! Visit CERP's website to sign up:
http:/cra.org/cerp/data-buddies/.

Connecting Computing Research with National Priorities

CCC
Computing Community Consortium
Catalyst

By CCC Staff

For weeks we have been recapping the Computing Community Consortium (CCC) Symposium from the perspective of the researchers and industry representatives who presented their work on each panel.

Jim Kurose talks to the audience about CS+X

This week, we are getting a different perspective. The goal of the final panel, called Connecting Computing Research with National Priorities and moderated by CCC Vice Chair Mark D. Hill, was to get a perspective from people who have or are currently serving in government.

The panelists included:

- **Will Barkis**, from **Orange Silicon Valley,** shared a Silicon Valley perspective and called for increasing investment in basic research and development to benefit society as well as support innovation in industry. He emphasized that collaboration between academia, the public sector, and the private sector is critical for long-term impact.

- **Patti Brennan,** from the **National Institutes of Health** (NIH), talked about a number of healthcare issues in the country that we need to be aware of and start addressing, such as the accelerated mental health crisis. If we develop computational services and fine-grained access control we might be able to address some of these issues sooner rather than later.

- **Jim Kurose,** from the **National Science Foundation** (NSF), discussed smart and connected communities and how it serves people in their communities. He also highlighted the importance of interdisciplinary work and gave the example of biologists and computer scientists coming together in the field of bioinformatics.

- Bill Regli, from **Defense Advanced Research Projects Agency** (DARPA), explained the **Heilmeier Catechism.** George H. Heilmeier, a former DARPA director, crafted a set of questions to help Agency officials think through and evaluate proposed research programs.

During the Q&A session, one audience member asked if we should have computational specialists in all science fields since many are becoming more interdisciplinary. Dr. Brennan said that if we put computation in all fields then we run the risk of losing its impact. She does think that some of the training programs are a start, but it takes time for it to run smoothly enough. Dr. Kurose praised a number of CS+X programs around the

country. These programs are trying to reach out to a different set of students who are interested in computing but are currently in other disciplines. They understand that if they take computational classes in their discipline only more doors will open.

To read all the recaps from each panel, see below:

Intelligent Infrastructure for our Cities and Communities

AI and Amplifying Human Abilities

Security and Privacy for Democracy

Data, Algorithms, and Fairness Panel

See the videos from all panels **here.**

Bill Regli explains the DARPA Heilmeier Catechism

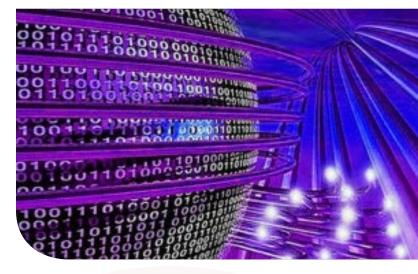# Microsoft Research Podcast on Quantum Computing

By CCC Staff

The terms superposition, entanglement, and interference might sound like they are from a superhero movie, but they are in fact very important terms in the field of quantum computing. Quantum computing is very different from classical digital on/off computing, which you might be more familiar with. It relies on the principles of quantum mechanics to compute and uses these terms to store information in a quantum state.

Recently, the **Microsoft Research Podcast interviewed Microsoft Principal Research Manager**, **Dr. Krysta Svore about her field of quantum computing.** In the podcast, Svore talks about how quantum computing can do so much more than digital computing. With quantum algorithms we can "solve real world problems that are going to make a difference…that really affect humanity."

The **Computing Community Consortium** (CCC) **Post Moore's Law Computing Task Force** has also been looking into the potential of quantum computing. The following is a quote from CCC Vice Chair and Co-Chair of the Post Moore's Law Task Force group, **Mark D. Hill** from the **University of Wisconsin, Madison.**

These are exciting times for quantum computing in many quarters, including the CCC which is sponsoring a workshop to bring together interested parties from academia, industry, and government to accelerate development of the quantum computing "stack," including software and architectures that bridge from algorithms to devices.

The CCC Quantum Workshop will be held May 22–23, 2018. More information will be posted on the **CCC events page** soon. To see the full quantum computing podcast with **Dr. Krysta Svore, see this website.**

Baidu USA

Big Data & AI Postdoctoral Researcher

Company Information: Located in the heart of Silicon Valley, Baidu USA is the R&D center of Baidu, China's largest search engine provider. Baidu USA's team of elite, world-class researchers and engineers devote their time to tackling the most challenging, change-the-world projects in AI and related fields. Baidu USA is comprised of four groups: Baidu Research US, Intelligent Driving Group US, Baidu USDC and Duer US.

At Baidu USA, we act with the nimbleness of a startup, but as a global company, have access to immense computing resources and data. This makes Baidu USA the best place for those working in AI to see their work developed and potentially deployed to millions of users.

In case in you are wondering, the name Baidu was inspired by a poem written more than 800 years ago during China's Song Dynasty. Baidu, whose literal meaning is "hundreds of times" represents a persistent search for the ideal.

The Big Data Lab (BDL-US) at Baidu Research invites applications for a number of Postdoctoral Fellowships, to conduct original research in computer science and statistics. Areas of research include statistical learning, deep nets, theoretical computer science, security, natural language processing, computer vision, knowledge graphs, etc. The initial contract will be for one year and may be extended for the second and third years, depending on mutual agreement.

The Postdoctoral Fellows are expected to work in either Seattle or Silicon Valley Offices. Special arrangement may be made for applicants who wish to work in China (Beijing or Shenzhen). The starting annual salary is expected to exceed $100,000 (USD). This fellowship should be an excellent opportunity for outstanding fresh PhD graduates who hope to spend a couple of years in an industry research lab before going to academia. Those who already have faculty offers are also welcome to apply if they can make proper arrangements with their universities.

Applicants are expected to have PhD degrees in Computer Science, Statistics, Mathematics, or Electrical Engineering. Please send applications to *bdlus_job@baidu.com*, with a CV, a statement of research, and two or three representative research manuscripts.

Carnegie Mellon University

Post-Doc Opening in Usable Privacy – Personalized Privacy Assistant Project

Opening for a Post-Doctoral Fellow in Usable Privacy in the School of Computer Science at Carnegie Mellon University. This is to work on the Personalized Privacy Assistant project.

For details, please see: *https://www. privacyassistant.org/static/files/post-doc-opening-2018.pdf*

Carnegie Mellon University

Information Systems Teaching Track Position

Carnegie Mellon University seeks applicants for one or more teaching-track positions in Information Systems, Dietrich College of Humanities and Social Sciences, beginning Fall Semester 2018. This is a career-oriented, renewable appointment with primary responsibilities for teaching and contributions to the educational mission of the college's interdisciplinary, undergraduate Information Systems (IS) degree program. The IS program is world-renowned for its contributions to practice and teaching. Our faculty members are recognized internationally for their expertise and are dedicated to postsecondary education.

Qualifications

A Ph.D. in Information Systems, Human Computer Interaction, Computer Science, or closely related relevant field is required for initial appointment. "ABD" candidates nearing completion of their degree may be considered for conditional appointment.

We will consider applicants knowledgeable in the general area of information systems. There are several broad areas of interest, including but not limited to, software development, mobile computing, information security and assurance, information technology for development, big data and analytics, design of user-centered systems, information technology and sustainability. In general, we give higher priority to the overall originality and

CRA
Computing Research
Association

Association for Computing Machinery (ACM)
Chief Executive Officer

ACM, the Association for Computing Machinery, invites applications for the position of Chief Executive Officer (CEO).

ACM is the oldest and largest educational and scientific computing society with nearly 100,000 members worldwide. The association has an annual budget of $75 million, 75 full-time staff in New York and Washington D.C., a rich publications program that includes 90 periodicals in computing and hundreds of conference proceedings, a dynamic set of special interest groups (SIGs) that run nearly 300 conferences/symposia/workshops each year, initiatives in India, China, and Europe, and educational and public policy initiatives. ACM is the world's premiere computing society.

The ACM CEO serves as the primary executive responsible for the formulation and implementation of ACM strategic direction, for representing ACM in the worldwide computing community, and for overall management of the affairs of the association. The successful candidate will have high professional standing in the computing field, executive experience, leadership skills, and a vision of the future of professional societies and computing. The CEO reports to the ACM President. It is not a requirement that the CEO work from ACM's New York headquarters, but must be able to travel frequently to headquarters and other ACM meetings.

The full job description and details on how to apply can be found at: **ceosearch.acm.org**

acm
Association for
Computing Machinery

promise of the candidate's work rather than to the sub-area of specialization. A demonstrated record of teaching effectiveness and/or relevant industry experience in particularly is welcomed.

The ideal candidate should be able to teach a range of core undergraduate courses, and develop elective courses of broad interest. See our website for background: cmu.edu/information-systems. Carnegie Mellon offers teaching-track appointments at assistant, associate and full teaching professor.

TO APPLY: visit *https://apply.interfolio.com/47091*

Carnegie Mellon University

Post-Doc Opening in the area of Usable Privacy and ML/NLP

Post-doctoral opening at Carnegie Mellon University to work on Usable Privacy in the School of Computer Science. This opening starts in Spring 2018. Start date is negotiable.

For additional details: see: *https://usableprivacy.org/openings*

The CISPA-Stanford Center for Cybersecurity

Elite Research Career Program Postdoctoral & Faculty Positions (m/f) in Cybersecurity

The CISPA-Stanford Center for Cybersecurity was established as a joint program by CISPA – the Center for IT-Security, Privacy and Accountability

at Saarland University (future CISPA Helmholtz-Zentrum i.G.) and Stanford University in 2016 and is supported by the German Federal Ministry of Education and Research (BMBF).

The Elite Research Career Program intends to offer the very best postdoctoral cybersecurity researchers a unique career path at two of the leading cybersecurity institutes in the world. The program consists of three consecutive phases:

- a preparatory 1-2-year postdoctoral phase (Phase P) at CISPA, followed by
- a 2-year appointment at Stanford University (Phase I) as a visiting assistant professor, followed by
- a 3-year position at CISPA as a junior research group leader (Phase II).

Applicants to the program must have completed a distinguished PhD and demonstrated their potential to become future leaders in their field of research. Outstanding candidates are considered for fast track tenure-track positions at CISPA after their return from Stanford.

Applicants should submit their CV, copies of their school and university reports, a list of publications highlighting their five most relevant ones, names of 3-5 references, a brief description of their previous research, and a research proposal outlining their research vision. Please send them as a single PDF file to: *application@cispa-stanford.org*.

Application deadline: February 28, 2018.

We intend to arrange future rounds of application periodically.

More information: *https://www.cispa-stanford.org*

College of the Holy Cross

Full-Time Visiting Faculty Position in Computer Science

The Department of Mathematics and Computer Science at the College of the Holy Cross invites applications for a visiting full-time faculty appointment, to begin August 2018. This position is approved for 2 years, and may be extended 1–3 years contingent upon performance and departmental needs. All full-time positions include full benefits with support for conference travel and relocation costs. A Ph.D. in computer science or a closely related field is preferred.

Review of applications will begin January 15, 2018. Questions may be directed to Kevin Walsh, *kwalsh@holycross.edu.*

For more information and to apply, please visit *https://apply.interfolio.com/47442.*

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.

Florida International University

Diversity Mentor Professorships in the School of Computing & Information Sciences

Florida International University invites applicants for a Senior Faculty Position in the School of Computing and Information Sciences (SCIS) as part of FIU's Diversity Mentor Professorship Initiative to recruit excellent STEM faculty with a history and commitment to the mentorship of students from underrepresented and underserved populations, particularly women and Hispanic-American and African-American students.

FIU's School of Computing and Information Sciences (SCIS) is a rapidly growing program of excellence at Florida International University (FIU). The School has 29 tenure-track faculty members and over 2,000 students, including over 90 Ph.D. students. The School is engaged in on-going and exciting new and expanding programs for research, education and outreach. The School offers B.S., M.S., and Ph.D. degrees in Computer Science, and M.S. degrees in Telecommunications and Networking, Cyber-security, and Information Technology as well as B.S./B.A. degrees in Information Technology.

SCIS invites applications from exceptionally qualified faculty. Candidates for senior positions must have an active and sustainable record of excellence in funded research, publications and professional service as well as has demonstrated leadership in collaborative or interdisciplinary research. In addition to developing or expanding a high-quality research program, all successful applicants must be committed to excellence in mentoring and teaching at both the graduate and undergraduate levels.

Applications are encouraged from candidates with highly transformative research programs and seminal ideas that extend the frontiers of computing and networking across other disciplines. A Ph.D. in Computer Science or related disciplines is required.

The successful candidate will be expected to mentor undergraduates and graduate students and to participate in campus-wide and departmental programs that promote the goals of FIU's NSF ADVANCE Institutional Transformation grant (*https://advance.fiu.edu*), its Faculty Diversity and Inclusion Plan, and programs that provide research and professional development opportunities for our diverse student body. Faculty appointment will be made at a tenured professorial rank commensurate with current academic standing and achievement. FIU offers competitive salaries, research set-up funds, and recruitment allowances.

Qualified candidates for the SCIS are encouraged to apply to Job Opening ID 514306 at *https://facultycareers.fiu.edu/.* Please attach: 1) a cover letter that specifies The School of Computing & Information Sciences as your likely tenure department and includes names and contact information for referees; 2) curriculum vita; 3) statement of research interests; 4) statement of teaching interests; and 5) statement of evidence of diversity mentoring (Guidelines: *https://advance.fiu.edu/ Diversity_Statement.pdf*). Nominations and questions should be sent to: Dr. Walter Van Hamme, (*vanhamme@fiu.edu*). Review of applications will begin on December 18, 2017, and continue until the positions are filled.

FIU is a member of the State University System of Florida and an Equal Opportunity, Equal Access Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

SCHOOL OF COMPUTING AND INFORMATION SCIENCES

11200 S.W. 8TH Street. • Modesto A. Maidique ECS 352 • Miami, FL 33199 • Tel: (305) 348-2744 • Fax (305) 348-3549 • Florida International University is an Equal Opportunity/Access Employer and Institution TDD via FRS 1-800-955-8771

Harvard John A. Paulson School of Engineering and Applied Sciences

Tenured Professor in Computer Science

The Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS) seeks applicants for a position at the tenured level in the area of Artificial Intelligence with Societal Impact, with an expected start date of July 1, 2018.

We seek a computer scientist whose research accomplishments include fundamental advances in AI and impact through applications that improve societal well-being. We seek candidates who have a strong research record and a commitment to undergraduate and graduate teaching and training. We particularly encourage applications from historically underrepresented groups, including women and minorities.

Computer Science at Harvard is enjoying a period of substantial growth in numbers of students and faculty hiring, and in expanded facilities. We benefit from outstanding undergraduate and graduate students, world-leading faculty, an excellent location, significant industrial collaboration, and substantial support from the Harvard Paulson School. For more information, see *http://www.seas. harvard.edu/computer-science.*

The associated Center for Research on Computation and Society (*http://crcs. seas.harvard.edu/*), Berkman Klein Center for Internet & Society (*http://cyber. harvard.edu*), Data Science Initiative (*https://datascience.harvard.edu/*), and Institute for Applied Computational Science (*http://iacs.seas.harvard.edu*) foster connections among computer science and other disciplines throughout the university.

Candidates are required to have a doctoral degree in computer science or a related area.

Required application documents include a cover letter, CV, a statement of research interests, a teaching statement, and up to three representative papers. Candidates are also required to submit the names and contact information for at least three references. Applicants can apply online at *https://academicpositions.harvard.edu/ postings/8037*

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Harvard Medical School
Mass Eye and Ear/Harvard Medical School- Postdoctoral Fellow Positions in Multi- Modal Brain Imaging, Machine Learning, and Neural Modeling

The Dystonia and Speech Motor Control Laboratory (*masseyeandear.org/ simonyanlab*) at Mass Eye and Ear and Mass General Hospital has several open postdoctoral fellow positions to study normal and diseased organization of large-scale networks controlling highly skilled motor behaviors. We employ multi-modal neuroimaging methodologies, including task-production, resting-state and pharmacological fMRI, high-resolution structural MRI, diffusion weighted imaging, and direct intracranial EEG, to examine brain functional, effective and structural connectivity in healthy individuals and patients with dystonia and epilepsy. Our analytic approaches include, but are not limited to, graph theoretical

analysis of large-scale neural networks, the application of novel machine learning algorithms for diagnostic and predictive classification of neurological disorders, and neural population modeling. The postdoctoral fellow may work on one or more projects.

Dystonia
(I) Machine learning for identification and validation of neuroimaging and genetic markers of dystonia and the prediction of risk for dystonia development.

(II) Graph theoretical analysis, machine learning and pharmacogenomics for identification of primary mechanistic markers of action of a novel oral medication in patients with dystonia.

(III) Abnormalities of brain activation and neural networks across different forms of task-specific focal dystonia using a combination of structural and functional neuroimaging techniques, genetic analysis, and behavioral neurotesting.

Epilepsy
(I) Graph theoretical analysis of high-resolution intracranial EEG data for identification of the topology of large-scale neural connectivity in epilepsy and the development of neural markers for prediction of epileptic seizures.

Normal speech production
(I) Development and implementation of large-scale neural population models incorporating neurotransmission for simulation and prediction of brain activity during speech production.

Qualifications and Skills

- PhD in neuroscience, mathematics, computer science, bioengineering, or related fields
- Exceptionally strong computational and biostatistical skills to implement and integrate the analysis of multi-dimensional imaging, clinical and/or genetic datasets
- Solid experience in Python, MATLAB, and C
- Strong experience in algorithmic design, mathematical models (primarily stochastic differential equation systems), and analysis and integration of dynamic systems
- Independent, self-motivated with a proven track record of productive research
- Excellent verbal and written communication skills
- Ability to work effectively both independently and in collaboration with multiple investigators
- Strong publication record and excellent academic credentials

The application should be sent to Dr. Kristina Simonyan at *Kristina_Simonyan@meei.harvard.edu* and should include the candidate's CV with the list of publications, a statement of interest in the position, and the names of at least three professional referees.

Harvard Medical School

Postdoctoral Fellow Positions in Multi-Modal Brain Imaging, Machine Learning, and Neural Modeling

The Dystonia and Speech Motor Control Laboratory (*masseyeandear.org/simonyanlab*) at Harvard Medical School has several open postdoctoral fellow positions to study normal and diseased organization of large-scale networks controlling highly skilled motor behaviors. We employ multi-modal neuroimaging methodologies, including task-production, resting-state and pharmacological fMRI, high-resolution structural MRI, diffusion weighted imaging, and intracranial EEG, to examine brain networks in healthy individuals and patients with dystonia and epilepsy. Our analytic approaches include graph theoretical analysis of large-scale neural networks, machine learning algorithms for diagnostic and predictive classification of neurological disorders, and neural population modeling. The postdoctoral fellow may work on one or more projects.

Dystonia

- Machine learning for identification and validation of neuroimaging and genetic markers of dystonia and the prediction of risk for dystonia development.

- Graph theoretical analysis, machine learning and pharmacogenomics for identification of primary mechanistic markers of action of a novel oral medication in dystonia.

Epilepsy

- Graph theoretical analysis of intracranial EEG for identification of topology of large-scale neural connectivity in epilepsy and the development of neural markers for prediction of epileptic seizures.

Normal speech production

- Development and implementation of large-scale neural population models incorporating neurotransmission for simulation and prediction of brain activity during speech production.

Minimum Qualifications

- PhD in computer science, mathematics, bioengineering, neuroscience, or related fields
- Exceptionally strong computational and biostatistical skills
- Solid experience in Python, MATLAB, and C
- Strong experience in algorithmic design, mathematical models, and analysis and integration of dynamic systems
- A proven track record of productive research and excellent academic credentials

The application should be sent to Dr. Kristina Simonyan (*Kristina_Simonyan@meei.harvard.edu*) and include a cover letter, CV, a statement of research interests, and the names and contact information of three references.

Professional Opportunities

Haverford College

Available Postdoctoral Fellow, and Software Engineer

Haverford College seeks to hire a full-time, exempt, fully benefits eligible Postdoctoral Fellow, and a full-time, exempt Software Engineer, in support of the College's pending DARPA contract, "Discovery reactions and uncovering mechanisms of perovskite formation." These positions are for an initial one-year term, with the potential for up to four years pending successful performance and continuation of funding. Fulfillment of these positions are contingent on funding approval.

Please visit *https://www.haverford.edu/human-resources/news/postdoctoral-fellow-cheminformatics-0* for information on the Postdoctoral Fellow, and *https://www.haverford.edu/human-resources/news/software-engineer* for detailed information about the Software Engineer position, and for instructions on how to apply.

Haverford College

Visiting Assistant Professor of Computer Science

Haverford College seeks a Visiting Assistant Professor in the Department of Computer Science for the 2018-19 academic year.

For full information and to apply, please visit: *http://apply.interfolio.com/48111.*

Applications due March 1, 2018.

香港中文大學
The Chinese University of Hong Kong

Applications are invited for:-

Department of Information Engineering
Professors / Associate Professors / Assistant Professors
(Ref. 170002EJ)

The Department of Information Engineering (IE) has multiple tenure track faculty openings at the level of Professor, Associate Professor and Assistant Professor. In particular, we are looking for strong candidates in the systems area which covers the design and implementation of networking/ distributed systems, cloud, fog and edge-computing, Internet of Things, platforms/ infrastructure for big data analytics and large-scale machine-learning. We are also eagerly seeking new faculty in the areas of AI, machine learning, deep learning, and data science. Outstanding candidates in other areas of information engineering who complement/ supplement our existing strength in communication systems and information theory will also be considered. Further information about the Department can be found at http://www.ie.cuhk.edu.hk.

Applicants should have (i) a relevant PhD degree; (ii) strong commitment to excellence in research and teaching; and (iii) outstanding accomplishments and research potential.

Appointments will normally be made on contract basis for up to three years initially commencing Spring Term or Fall Term of 2018-19, which, subject to performance and mutual agreement, may lead to longer-term appointment or substantiation later.

Applications will be accepted until the posts are filled.

Application Procedure
Applicants please upload the full resume with a cover letter, copies of academic credentials, publication list with abstracts of selected published papers, a research plan, a teaching statement, together with names and e-mail addresses of three to five referees to whom the applicant's consent has been given for their providing reference (unless otherwise specified).

The University only accepts and considers applications submitted online for the posts above. For more information and to apply online, please visit http://career.cuhk.edu.hk.

Indiana University Purdue University Indianapolis

Assistant Professor of Computer and Information Technology

The Purdue School of Engineering and Technology, Indiana University–Purdue University at Indianapolis (IUPUI) invites applications for up to two tenure-track faculty positions in Computer and Information Technology with an anticipated start date of August 1, 2018 or possibly earlier. Applicants should have a strong record of research, show significant potential for establishing and sustaining an externally funded research program, and be committed to teaching both undergraduate and graduate courses.

We are particularly interested in applicants whose research focuses in one of the following areas: i) Cloud Computing or Distributed Computing; ii) Machine Learning and Artificial Intelligence; iii) Pervasive Computing and Web Technologies; and iv) Autonomous Systems.

Applicants whose research complements existing strengths in the department, including topics such as data science, mobile health, and cybersecurity will also be considered, as well as exceptional candidates in other areas. Candidates must have a Ph.D. in computer science, engineering, information technology, or a closely related discipline before the start date.

Applications must include a letter of interest, curriculum vitae, summary of scholarship including teaching and research interests, and contact information

Faculty Positions in Computer Science and Engineering

The School of Informatics, Computing and Engineering (SICE) at Indiana University (IU) Bloomington invites applications for two faculty positions beginning in Fall 2018 at the assistant professor level in areas relevant to **System and Network Security**, in the Computer Science Department or Intelligent Systems Engineering Department. Duties include teaching, research, and service.

The SICE is the first of its kind and among the largest in the country, with unsurpassed breadth. Its mission is to excel and lead in education, research, and outreach spanning and integrating the full breadth of computing and IT. It includes Computer Science, Informatics, Intelligent Systems Engineering and Information and Library Science, with over 110 tenure-line faculty, 1200 graduate students, and 1900 undergraduate majors on the Bloomington Campus. It offers PhDs in Computer Science, Informatics, Intelligent Systems Engineering and Information Science. Additional information about the School can be found at: https://www.sice.indiana.edu/

Bloomington is a culturally thriving college town with a moderate cost of living and the amenities for an active lifestyle. IU is renowned for its top-ranked music school, high-performance computing and networking facilities, and performing and fine arts.

Applicants should have a demonstrable potential for excellence in research and teaching, and a PhD in a relevant area or expected before August 2018.

To apply applicants should submit a letter of interest, CV, a statement of research and teaching, and names and contact information for three references using the link below.

https://indiana.peopleadmin.com/postings/4893

For full consideration applications are due by December 15, 2017, but applications will be considered until the positions are filled.

Questions may be sent to sicehire+SEC-2017@indiana.edu

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

for at least three references. Apply for this position at *http://indiana.peopleadmin.com/postings/4345*. Applications are welcome until the position is filled.

IUPUI is an Equal Opportunity/Affirmative Action educator and employer and affords reasonable accommodations to persons with disabilities.

Lake Superior State University

Tenure-Track Faculty of Computer Science

Lake Superior State University seeks applicants to teach University courses in Web Page Design and Development, Web Graphic Content, Multimedia and Interactive Websites, Database Applications (including web interfaces to databases), Web Applications (Javascript, PHP, ASP.Net), and Web and Network Server Administration (Windows, Linux, Novell). M.S. with 18 hours graduate coursework in Computer Science, Computer Networking, or a related field, and a commitment to undergraduate education.

To apply visit *https://jobs.lssu.edu*

Johns Hopkins University

Teaching Professor in Human Language Technology

The Center for Language and Speech Processing (CLSP) at Johns Hopkins University seeks outstanding candidates for a fulltime teaching position. The search is open to all ranks, including Senior Lecturer, Associate Teaching Professor and Teaching Professor.

Computer Science Instructor 2018

MiraCosta Community College in North San Diego County, California, invites applications for one full-time, tenure-track Computer Science Instructor position, beginning in August 2018.

Duties include teaching computer science courses throughout the curriculum. This includes incorporating culturally-responsive pedagogical techniques and effective practices for engaging women, African American, Latinx, Pacific Islander, and/or Native American students, who are historically underrepresented and underserved in traditional computer science classrooms; and participating in departmental and college-wide committee work, outreach and projects. To view the department website, go to http://www.miracosta.edu/cs

To view full job posting and to apply, go to
http://apptrkr.com/1144789

Application deadline: February 20, 2018

MiraCosta College is an Equal Opportunity Employer (Minorities/Females/Disabled/Veterans)

Connect: 760.757.2121 | 888.201.8480 | www.miracosta.edu
COMMUNITY LEARNING CENTER | OCEANSIDE CAMPUS | SAN ELIJO CAMPUS | TECHNOLOGY CAREER INSTITUTE

This position will be central to CLSP's new Certificate in Human Language Technology, part of the master's degree programs in Computer Science (CS) and the Electrical and Computer Engineering (ECE). The successful candidate will be involved in course development, graduate teaching, graduate academic advising, supervising master's thesis projects, and managing various aspects

of the Certificate program. Successful candidates will join the faculty of CLSP, one of the largest and most visible academic organizations in speech processing and NLP. Although this is primarily a teaching position, there is also potential for research effort.

Applications: *http://apply.interfolio. com/47959*

Deadline: January 31, 2018 for full consideration, but applications will be accepted until positions are filled.

Questions: *clspsearch@clsp.jhu.edu*

McGill University

Faculty Lecturer, School of Computer Science

The School of Computer Science at McGill University invites applications for an appointment as faculty lecturer. The initial appointment is for 3 years with the possibility of re-appointment.

Candidates must have at least a graduate degree in Computer Science or related discipline, and demonstrated excellence in teaching computer science at the university level. Candidates with a PhD will be prioritized.

Salary will be commensurate with qualifications.

The School is looking for candidates who are able to teach a wide range of 1st and 2nd year computer science courses. Preference will be given to candidates who have special interest and feel comfortable to teach advanced courses in one of our two

priority areas: systems (operating systems, database systems, networks, etc.) or theory (algorithms and complexity, programming languages, optimization, etc.).

The successful candidate must be committed to excellence in undergraduate teaching, and be motivated to actively participate in the School's activities around undergraduate teaching: academic program development, innovation in teaching, course administration, engagement and liaison with our very active undergraduate student body, mentoring and more.

Montreal is a historic and cosmopolitan city, and considered one of the best cities for students. The School of Computer Science offers a collegial environment with opportunities for interaction with world-class researchers that take their teaching responsibilities very seriously. The School teaches to a very diverse student body and embraces inclusiveness. The percentage of women in our programs is one of the highest in Canada. Introductory courses are open to students across campus, and the School offers a wide set of different programs, including majors, specializations, honours and several joint programs, both in the Faculty of Science and the Faculty of Arts.

To apply, submit your application using the web page at: *https://hire-lecturer.cs.mcgill. ca/new_hire*

The complete application package required includes:
- a curriculum vitae
- a teaching statement; this should include discussion of how the candidate's teaching interest matches the School's current course offerings

- a teaching dossier including course syllabi and student evaluations
- the names and email addresses of three references. The referees should be able to address the candidate's pedagogical strength and subject competency in computer science.

The selection process will begin by January 31, and continue until the position is filled.

McGill University is committed to diversity and equity in employment. It welcomes applications from: women, Aboriginal persons, persons with disabilities, ethnic minorities, persons of minority sexual orientation or gender identity, visible minorities, and others who may contribute to diversification. All qualified applicants are encouraged to apply; however, in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

For more information *facultylecturer. search@cs.mcgill.ca.*

For details of the Faculty Lecturer classification, please see *https://www. mcgill.ca/apo/classifications/cas- ranked/.*

Missouri University of Science and Technology

Professor – Cynthia Tang Distinguished Professor in Computer Engineering

The Department of Electrical and Computer Engineering (ECE) at the Missouri University of Science and Technology Science and Technology invites nominations and

applications for the Cynthia Tang Missouri Distinguished Professor in Computer Engineering. The position is tenured at the Full or Associate Professor rank. The endowment provides unrestricted research funds and the salary is commensurate with the excellence of the candidate being sought.

The ECE department has 35 faculty members, and research expenditures of approximately $5.5M in the past fiscal year. More information about the department and campus can be found at *http://ece.mst.edu.* The Computer Engineering program has research strengths in autonomous and cyber-physical systems, networking, high-speed digital design, and computational intelligence, which directly relate to university-wide strategic initiatives in the interdisciplinary signature area of Smart Living. The university has been recognized by the National Security Agency as a Center of Academic Excellence in Information Assurance Education (CAE-IAE) and Center of Academic Excellence in Information Assurance Research (CAE-R). We seek a candidate with the capability to complement and enhance the existing strengths, particularly as they relate to security, reliability, or more generally, assurance of information and systems. Exceptional candidates from other areas will also be considered.

A Ph.D. in Computer Engineering or a closely related discipline is required, along with an international reputation for research excellence, a commitment to first-rate teaching, and strong mentorship

and leadership qualities. Questions and nominations should be directed to Dr. Kelvin Erickson, Professor at *kte@mst.edu.*

Missouri S&T is an affirmative action/equal opportunity employer and is responsive to the needs of dual-career couples. Learn more about our worldwide reputation for excellence, strategic plan and core values at *http://www.mst.edu/about/.*

Interested candidates should submit an electronic application (position #00030895/ job id #22776) to Missouri S&T Human Resources career site for academic postings at *http://hr.mst.edu/careers/academic/.*

Monash University in Melbourne

Faculty of Information Technology

The Faculty of Information Technology (*https://www.monash.edu/it*) at Monash University in Melbourne Australia is establishing a new group in HCI and creative technologies. We invite faculty at all levels to join a rapidly growing group in human-centered interfaces. We are especially interested:

(1) Wearable and personalized interfaces
(2) Mobile and multimodal-multisensor interfaces, including fusion-based ones
(3) Data analytics for predicting user emotion, cognition, and health
(4) Conversational dialogue interfaces
(5) Brain-computer and adaptive interfaces

Interested applicants should have a PhD in CS, IT, cognitive, linguistic, or brain sciences, and several years of post-PhD experience. All

candidates must have a strong publication record in top venues, excellent teamwork and communication/writing skills, and teaching/mentoring experience. Evidence of grants and industry partnerships is preferred. Depending on area, candidates are expected to have strong skills in methodology (empirical/statistical, machine learning, HCI methods), signal-processing, linguistic analysis/language processing, system architectures or software. The HCI area director is Dr. Sharon Oviatt, an ACM Fellow and international pioneer in human-centered interfaces: *https://www.monash.edu/it/our-research/graduate-research/scholarship-funded-phd-research-projects/projects/human-centred-mobile-and-multimodal-interfaces*

Monash and Melbourne Area:
Monash is Australia's largest university, ranking in the top 60 universities worldwide, with CS/IT rated in the top 70 (QS World rankings 2018). In addition to HCI, the IT School includes software, cyber-security, data science, AI, social computing, and many basic CS areas. The university has made strategic investments in facilities for prototyping innovative concepts, collecting and analyzing data, and displaying installations of interactive media—including sensiLab (tangible, wearable, augmented/virtual reality, multimodal-multimedia, maker-space), Immersive Visualization and Analytics lab, Centre for Data Science, ARC Centers of Excellence on Integrative Brain Function and Robotics. It currently is investing in HCI facilities for developing new mobile and multimodal/multisensor interfaces, analyzing human multimodal

interaction, and predicting users' cognitive and health status.

Melbourne is rated the #1 city worldwide for quality of life (Economist & Guardian, *http://www.economist.com/blogs/graphicdetail/2016/08/daily-chart-14* and

https://www.theguardian.com/australia-news/2016/aug/18/melbourne-wins-worlds-most-liveable-city-award-sixth-year-in-a-row), with excellent education, healthcare, infrastructure, low crime, and exceptional cuisine, culture, and creative design. It is renowned for its dramatic coastline, parks, wildlife, and wine region.

Position and Compensation:
Full-time for 12 months a year, with competitive salary and benefits: *http://adm.monash.edu.au/enterprise-agreements/academic-professional-2014/s1-academic-salary-rates.html,* including 17% superannuation retirement fund, relocation and generous start-up package. The academic year begins late Feb. 2018, with semester 2 starting late July, but start date is negotiable. For North American applicants, "Lecturer (level B)" is Assistant Professor, "Senior Lecturer (level C)" is Associate Professor, and "Associate Professor (level D)" is Professor. Monash has a Women in IT Program, and welcomes talented female, minority, and international applicants. For enquiries: *Oviatt@incaadesigns.org.*

To apply:
Submit online at *http://careers.pageuppeople.com/513/cw/en/job/571151/academic-opportunities-in-human-computer-interaction-fit* with: (1) cover letter (indicating area 1-5, planned future research, date of availability); (2) CV with publications, research and teaching interests, 3-5 references with email/phone contact; (3) 3 publications.

Monash University in Melbourne

Research Fellow

The Faculty of Information Technology (*https://www.monash.edu/it*) at Monash University in Melbourne Australia is establishing a new group in HCI and creative technologies. We invite PhDs to apply for a 3-year postdoctoral fellowship in multimodal interfaces and behavior analytics. The selected candidate will join a rapidly expanding multidisciplinary group in mobile and multimodal-multisensor interfaces, conversational interfaces, brain-computer and adaptive interfaces, wearable and personalized interfaces, data analytics for predicting user cognition and health status, and other topics. The HCI area director is Dr. Sharon Oviatt, an ACM Fellow and international pioneer in human-centered interfaces: *https://www.monash.edu/it/our-research/graduate-research/scholarship-funded-phd-research-projects/projects/human-centred-mobile-and-multimodal-interfaces*

This position involves research on predicting user cognition and health status, based on analysis of different modalities (e.g., speech, images, writing, sensors) during natural activities. These analyses involve exploring predictive patterns at signal, activity pattern, lexical, and other levels. The ideal candidate would be an initiating researcher with a strong publication record who is interested in pioneering in emerging research areas. He/she would have an interest in developing new technologies to identify users' cognitive and health status, and using this information to develop personalized interfaces that promote learning, performance, and health.

Requirements:
- PhD in CS, IT, cognitive or linguistic sciences
- Training in HCI, multimodal interfaces, data analytics, modeling human behavior & communication
- Experience collecting and analyzing speech, images, handwriting, and/or sensor data
- Experience applying machine learning, empirical/statistical, linguistic, or hybrid methods
- Interest in human cognition, educational technology, or health-related technologies
- Strong interpersonal/teamwork and communication/writing skills
- Ability to work with diverse partners
- Prefer 2-3 years post-PhD experience

Monash and Melbourne Area:
Monash is Australia's largest university, ranking in the top 60 universities worldwide, with CS/IT rated in the top 70 (QS World rankings 2018). In addition to HCI, the IT School includes software, cyber-security,

data science, AI, social computing, and many basic CS areas. The university has made strategic investments in facilities for prototyping innovative concepts, collecting and analyzing data, and displaying installations of interactive media—including sensiLab (tangible, wearable, augmented/virtual reality, multimodal-multimedia, maker-space), Immersive Visualization and Analytics lab, Centre for Data Science, ARC Centers of Excellence on Integrative Brain Function and Robotics. It currently is investing in HCI facilities for developing new mobile and multimodal/multisensor interfaces, analyzing human multimodal interaction, and predicting users' cognitive and health status.

Melbourne is rated the #1 city worldwide for quality of life (Economist & Guardian, *http://www.economist.com/blogs/graphicdetail/2016/08/daily-chart-14* and *https://www.theguardian.com/australia-news/2016/aug/18/melbourne-wins-worlds-most-liveable-city-award-sixth-year-in-a-row*), with excellent education, healthcare, infrastructure, low crime, and exceptional cuisine, culture, and creative design. It is renowned for its dramatic coastline, parks, wildlife, and wine region.

Position & Compensation:
This position is 3 years full-time, with competitive salary (Academic level B: *http://adm.monash.edu.au/enterprise-agreements/academic-professional-2014/s1-academic-salary-rates.html*) and benefits (17% superannuation retirement fund), relocation and seed funds. Start date negotiable. For enquiries email *Oviatt@incaadesigns.org.*

To apply:
Submit online at *http://careers.pageuppeople.com/513/cw/en/job/571150/research-fellow-multimodal-interfaces-behaviour-analytics* with (1) cover letter (indicating date of availability); (2) CV with publications, research and teaching interests, 3 references with email/phone contact; (3) graduate transcripts; (4) 3 publications. Monash has a Women in IT Program, and welcomes female, minority and international applicants.

National University of Singapore

Sung Kah Kay Assistant Professor in All Areas of Computer Science

The Department of Computer Science at the National University of Singapore (NUS) invites applications for the Sung Kah Kay Assistant Professorship. Applicants can be in any area of computer science. This prestigious chair was set up in memory of the late Assistant Professor Sung Kah Kay after his untimely demise early in his career at NUS. Candidates should be early in their academic careers and yet demonstrate outstanding research potential, and strong commitment to teaching.

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

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

Application Details:
- Submit the following documents (in a single PDF) online via: *https://faces.comp.nus.edu.sg*
- A cover letter that indicates the position applied for and the main research interests
- Curriculum Vitae
- A teaching statement
- A research statement
- Provide the contact information of 3 referees when submitting your online application, or, arrange for at least 3 references to be sent directly to *csrec@comp.nus.edu.sg*
- Application reviews will commence immediately and continue until the position is filled
- If you have further enquiries, please contact the Search Committee Chair, Weng-Fai Wong, at *csrec@comp.nus.edu.sg*

NEC Laboratories America

Researcher – Data Science

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

The Data Science Department *(http://www.nec-labs.com/research-departments/data-science/data-science-home)* performs research on all aspects of data analytics and mining. We are creating innovative analytics from big data to simplify and automate the operation of complex physical systems (e.g., automobiles, power plants, smart city etc.), as well as large-scale IT systems and services. We have several ongoing big data analytics projects including massive time series modeling, heterogeneous data analysis, and large scale graph mining etc. Our group brings together experts in machine learning, artificial intelligence, data mining, statistics, signal processing, pattern recognition and big data processing systems. We build technologies to solve real world problems and grow NEC's business. Our research leads to both award-winning NEC products/solutions and numerous publications in top conferences.

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

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

NEC Laboratories America is located in Princeton, NJ, home of Princeton University and one of New Jersey's most beautiful and idyllic towns.

The area offers many exciting cultural, entertainment and outdoor activities. The office is minutes away from Princeton University and an hour from New York, Philadelphia, and the Atlantic Ocean. For more information about NEC labs, access *http://www.nec-labs.com/*, and submit your CV and research statement through our career center at *https://www.appone.com/MainInfoReq.asp?R_ID=1802426*

EOE-M/F/V/D

NEC Labs America

Researcher – Security Systems

The Computer Security (CS) Department at **NEC Labs America** in Princeton, NJ, is seeking outstanding researchers who have passion to build research systems that solve the challenging real-world security problems. We are looking for candidates in the areas of security, systems, database, big-data platforms, with a strong publication record.

The Computer Security (CS) department has been developing innovative security solutions and grown NEC's business. We provide a vibrant environment that has produced very strong research results.

Given the prevalence of advanced persistent threats (APT), our recent focus has been on using ubiquitous monitoring, big-data and AI technologies to improve security intelligence. Another focus area is security research related to Internet of Things (IoT), Industrial Control Systems (ICS), and Automotive systems.

We value creative research ideas, solid system building experience, and the passion to make research results impact the industry and our society. We also value interdisciplinary research.

Qualifications:
- PhD in Computer Science or Engineering
- Strong publications or system building records
- Experience with the following is a plus:
  - Real-world system building
  - Big-data platforms such as database or data streaming
  - Real-world APT attack pattern analysis, exploit and malware analysis
  - IoT, critical infrastructure (ICS, SCADA), and automotive system security
  - Network IDS systems (e.g., Bro), network packet and protocol analysis

NEC Laboratories America is located in Princeton, NJ, home of the Princeton University and one of New Jersey's most beautiful and idyllic towns. The area offers many exciting cultural, entertainment and outdoor activities. The office is minutes away from Princeton University and an hour form New York, Philadelphia, and the Atlantic Ocean. For more information about NEC labs, please access *http://www.nec-labs.com/*, and submit your CV and research statement

through our career center at *https://www.appone.com/MainInfoReq.asp?R_ID=1810405*.

EOE-M/F/D/V

NEC Research Labs

Researcher – Security Analytics

The Computer Security (CS) Department at NEC Research Labs in Princeton, NJ, is seeking outstanding researchers who have passion to apply machine learning, data mining, or other AI related technologies to solve real-world security problems.

The Computer Security (CS) department has been developing innovative security solutions and grown NEC's business. We also provide a vibrant environment that has produced very strong research results. We embrace the opportunities to leverage big-data and AI technologies to improve security. We strongly value interdisciplinary research.

Position Requirements:

Our group is looking for researchers in the area of security analytics. The ideal candidates should have expertise in applying machine learning, data mining, or other AI related techniques to solve real-world problems. He/she should be able to design and develop algorithms to process big data and build innovative analytic system for security applications. He/she must have a PhD in Computer Science or Computer Engineering with strong publication records and/or hands on experience in at least one of the following areas:

- Machine learning and AI (Especially neural networks and deep learning)
- Data mining and statistical learning
- Graph and information network mining
- Anomaly detection

NEC Laboratories America is located in Princeton, NJ, home of the Princeton University and one of New Jersey's most beautiful and idyllic towns. The area offers many exciting cultural,

NJIT
New Jersey Institute of Technology

CHAIR, COMPUTER SCIENCE DEPARTMENT, NJIT

The Computer Science Department at the New Jersey Institute of Technology (**http://cs.njit.edu/**) invites applications for the position of Department Chair. The successful candidate should demonstrate academic leadership skills necessary to create the conditions for faculty and student development and encourage interdisciplinary research across the university as well as with other national and international partners. He/she is expected to play an active role in capitalizing on the departments' strengths to elevate the department's visibility and recognition. Candidates must have a PhD in computer science or a related discipline with a demonstrated track record of scholarly accomplishments commensurate with the appointment at the rank of Full Professor, including a sustained record of publication in top venues, attracting funding, and mentoring students. The ideal candidate must demonstrate administrative leadership as well as the ability to recruit, mentor and retain diverse research-intensive faculty, maintain a collegial and ethical environment, and work with faculty and students of diverse backgrounds.

NJIT's Computer Science Department has 33 tenure-track faculty, 13 lecturers, and 1,408 students (including 59 PhD and 550 MS students) across nine programs of study. The Computer Science Department participates alongside NJIT's Informatics Department in producing the largest pool of computing talent in the tri-state (CT, NJ, NY) area. With $5M in annual research expenditures and several state-of-the-art research centers and laboratories, the department conducts research in a wide range of areas and plays a key role in the NJIT Center for Big Data and The NJIT Cybersecurity Research Center. The department has strong connections with local industry and works closely with many corporations through student Capstone projects, internships, co-ops and joint R&D projects.

The Computer Science Department resides within the Ying Wu College of Computing, which is undergoing significant growth as a priority area for NJIT under a new Dean. This growth is an integral part of NJIT's five-year strategic plan, called Vision 2020, which calls for consolidating NJIT as a world-class institution of higher education and research. Applied research, collaboration with industry, innovation and entrepreneurship are encouraged and supported. Performance and tenure expectations are aligned with those of the broader computing community, with an emphasis on grant funding and publishing in top conferences and journals.

The Ying Wu College of Computing comprises 23% of the NJIT enrollment, educating more than 2,700 students in computing disciplines, and graduating more than 750 computing professionals every year. As such, it is the largest generator of computing talent in the tri-state area.

NJIT is located in Newark's University Heights, a vibrant sprawling downtown campus close to Rutgers-Newark, New Jersey Innovation Institute, Essex Community College, New Jersey Medical School, University Hospital, and Rutgers School of Dental Medicine. NJIT is just a 30 minute train ride from New York City and its burgeoning Silicon Alley tech sector, enabling close interaction with that vibrant professional community.

APPLYING: Applications received by January 15, 2018 will receive full consideration. However, applications are welcome until the position is filled.

To apply, please visit **https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=1**8

The applications must include a cover letter, a curriculum vitae, and the names and contact information of five references. Supplemental materials and inquiries may be emailed to **cschairsearch@njit.edu**.

To build a diverse workforce, NJIT encourages applications from individuals with disabilities, minorities, veterans and women. EEO employer.

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entertainment and outdoor activities. The office is minutes away from Princeton University and an hour form New York, Philadelphia, and the Atlantic Ocean. For more information about NEC Labs, please access *http://www.nec-labs.com/*, and submit your CV and research statement through our career center at *https://www.appone.com/MainInfoReq.asp?R_ID=1804395.*

EOE-M/F/D/V

New Jersey Institute of Technology

Assistant/Associate Professor Positions, Informatics Department

The Informatics Department at New Jersey Institute of Technology (NJIT) welcomes applications for three full time Assistant or Associate Professor positions (details at *informatics.njit.edu/open-faculty-positions/*):

AR/VR/MR and Serious Gaming: Expertise in AR/VR/MR and immersive technologies in serious gaming preferred. Multimedia, networking, security and other Information Technology researchers will also be considered. Information Technology-related industrial experience is a plus.

Data/Information Science:

Expertise in information visualization, data science or information science preferred. Other analytics, social network analysis, information systems, and informatics researchers will also be considered.

Web Informatics:

Expertise in web, mobile and IoT technologies, informatics, or app, interface and UX design preferred. Other social networking, systems analysis and design, information systems and informatics researchers will also be considered. Candidates must have a PhD in a computing-related field by Summer 2018, and strong potential for world-class research and attracting grant funding. Candidates with exceptional records will be considered at the associate professor level.

CHAIR, INFORMATICS DEPARTMENT, NJIT

The Ying Wu College of Computing at New Jersey Institute of Technology (NJIT) welcomes applications for the position of Chairperson of the Informatics Department. The new Chair will lead the expansion of the department, recently created by combining the Information Systems Department and the Information Technology Program. The Chair will work closely with the Dean of the College in transforming the college into a prominent player in the NY/NJ tech community, which is a strong priority for NJIT.

DEPARTMENT: Informatics has a strong research and academic emphasis on data intensive computing, human centered computing, game design, augmented reality/virtual reality, security, and network administration. The department is well-ranked nationally for information systems and game design. We offer ABET accredited Baccalaureate programs in Web and Information Systems, Business and Information Systems, Human-Computer Interaction, and Information Technology. We also offer MS programs in Business and Information Systems, IT Administration and Security, and a PhD in Information Systems. The department enrolls over 760 undergraduate and 380 graduate students. The college enrolls over 2,700 students and is the largest generator of computing talent in the tri-state area. The college and department have strong connections with local industry and work closely with many corporations through student Capstone projects, internships, and joint R&D projects.

QUALIFICATIONS: The successful candidate must have earned a Doctorate in a relevant discipline, and should be an experienced and visionary academic leader with a distinguished research record. The candidate should qualify for a tenured position in the department at the rank of Full Professor. The Chair reports to the Dean of the Ying Wu College of Computing.

LOCATION: NJIT is located in Newark, NJ and is just a 30 minute train ride from New York City and its burgeoning Silicon Alley tech sector. The NJ area around NJIT features a high concentration of industry and businesses, with many opportunities for research collaboration and consulting. The region offers a variety of living environments, from lively urban to quiet suburbs to the Jersey shore, with excellent school districts.

APPLYING: Applications received by January 15, 2018 will receive full consideration. However, applications are welcome until the position is filled.

To apply, please visit
https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=14

The applications must include a cover letter, a curriculum vitae, and the names and contact information of five references.

Supplemental materials and inquiries may be emailed to **informatics-chairsearch@njit.edu.**

To build a diverse workforce, NJIT encourages applications from individuals with disabilities, minorities, veterans and women. EEO employer.

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UNIVERSITY HEIGHTS, NEWARK, NJ 07102-1982

The Informatics Department resides within the Ying Wu College of Computing, which is undergoing significant growth as a priority area for NJIT under a new Dean. Applied research, collaboration with industry, innovation and entrepreneurship are encouraged and supported. Performance and tenure expectations are aligned with those of the broader computing community, with an emphasis on grant funding and publishing in top conferences and journals. The department specializes in data-intensive research, human-centered computing and information technology, and offers Bachelor's through PhD degrees. We strongly encourage interdisciplinary research across the university and with other partners in the national and international community.

The Ying Wu College of Computing comprises 23% of the NJIT enrollment, educating more than 2,700 students in computing disciplines, and graduating more than 750 computing professionals every year. As such, it is the largest generator of computing talent in the tri-state area.

NJIT is located in Newark, NJ and is just a 30-minute train ride from New York City and its burgeoning Silicon Alley tech sector. Beyond the proximity to NYC, our part of NJ has a high concentration of industry and businesses, with many opportunities for research collaboration and consulting. The region offers a variety of living environments, from lively urban to quiet suburbs to the Jersey shore, with excellent school districts.

To Apply:
For AR/VR/MR + Serious Gaming, please visit: *https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=5*

For Data/Information Science, please visit: *https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=4*

For Web Informatics, please visit: *https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=3*

- Create your application, and post your cover letter and CV.
- Append supplemental materials (e.g., research and teaching statements, sample publications) to your CV or email to *hireis@njit.edu*
- Have at least 3 letters of reference emailed to *hireis@njit.edu*
- Address questions to search committee chair Dr. Michael Bieber (*bieber@njit.edu*).

An EEO employer, NJIT offers a welcoming and supportive community of students and colleagues, and encourages applications from diverse individuals with disabilities, minorities, veterans and women.

NEW JERSEY INSTITUTE OF TECHNOLOGY University Heights, Newark, NJ 07102-1982

New Jersey Institute of Technology

Director of the Center of Big Data at NJIT

The Ying Wu College of Computing (YWCC) at the New Jersey Institute of Technology (NJIT) (*http://computing.njit.edu/*) invites applications for a tenure-track/tenured faculty member to serve as the Director of the Center for Big Data (CBD). Candidates must have a PhD in computer science or a related discipline with a demonstrated track record of scholarly accomplishments commensurate with the appointment at the rank of Associate Professor or above. Appropriate areas of expertise include, but are not limited to: pattern recognition, machine learning, natural language processing, social media, analytics, high-performance computing for integration, analysis, visualization, and stream processing of very large amounts of structured, semi-structured, or unstructured data in areas such as business data, scientific data, medical data, etc.

The Center for Big Data at NJIT, *https://centers.njit.edu/bigdata/* is a new multi-disciplinary center designed to synergize the strong expertise in various disciplines across the NJIT campus and develop a rich set of big data enabling technologies and services. The CBD aims to investigate, develop, and apply cutting-edge technologies to address unprecedented challenges in big data with high Volume, high Velocity, high Variety, and high Veracity, in order to create high Value. The CBD groups faculty from Computer Science, Informatics, Math, Statistics and Management.

The successful candidate will hold a faculty appointment in the department of Computer Science and build the CDB into a vibrant research group. As the Director of the CDB he/she must attract funding and develop collaborative relationships with industry. He/she must demonstrate recognition for productivity and achievement in research

and the ability to work collaboratively with colleagues. The ideal candidate should have a strong business sense, experience in new program/center development and an understanding of what it takes to enhance research funding in a competitive environment. Exceptional communication skills, financial acumen and the potential to fundraise are essential. As a faculty member of the Computer Science department, he/she is expected to (1) teach undergraduate and graduate classes within an adjusted workload, supervise graduate students; (2) develop and teach new graduate and/or undergraduate classes and (3) serve the Department, the College and the University.

Reporting to NJIT Senior Vice Provost for Research, the Director of the Center for Big Data will have his/her primary appointment in the Computer Science department within YWCC. NJIT's Computer Science Department has 33 tenure-track faculty, 13 lecturers, and 1408 students (including 59 PhD and 550 MS students) across nine programs of study. The Computer Science Department participates alongside NJIT's Informatics Department in generating the largest pool of computing talent in the tri-state (CT, NJ, NY) area. With $5M in annual research expenditures and several state-of-the-art research centers and laboratories, the department conducts research in a wide range of areas and plays a key role in the NJIT Center for Big Data and the NJIT Cybersecurity Research Center. The department has strong connections with local industry and works closely with many corporations through student

Capstone projects, internships, co-ops and joint R&D projects.

The Computer Science Department resides within the Ying Wu College of Computing, which is undergoing significant growth as a priority area for NJIT under a new Dean. This growth is an integral part of NJIT's five-year strategic plan, called Vision 2020, which calls for consolidating NJIT as a world-class institution of higher education and research. Applied research, collaboration with industry, innovation and entrepreneurship are encouraged and supported. Performance and tenure expectations are aligned with those of the broader computing community, with an emphasis on grant funding and publishing in top conferences and journals.

The Ying Wu College of Computing comprises 23% of the NJIT enrollment, educating more than 2,600 students in computing disciplines, and graduating more than 750 computing professionals every year.

NJIT is located in Newark's University Heights, a vibrant sprawling downtown campus close to Rutgers-Newark, New Jersey Innovation Institute, Essex Community College, New Jersey Medical School, University Hospital, and Rutgers School of Dental Medicine. NJIT is just a 30-minute train ride from New York City and its burgeoning Silicon Alley tech sector, enabling close interaction with that vibrant professional community.

APPLYING: Applications received by January 15, 2018 will receive full consideration. However, applications are welcome until the position is filled.

To apply, please visit: *https://njit.csod.com/ats/careersite/JobDetails.aspx?site=1&id=44.*

Applications must include a cover letter, a curriculum vitae, and the names and contact information of five references.

Supplemental materials and inquiries may be emailed to *big-data-director-search-group@njit.edu.*

To build a diverse workforce, NJIT encourages applications from individuals with disabilities, minorities, veterans and women. EEO employer.

New Jersey Institute of Technology
University Heights, Newark, NJ 07102-1982

New Jersey Institute of Technology

University Lecturer/Senior University Lecturer, Computer Science Department, NJIT

The Computer Science Department at New Jersey Institute of Technology (NJIT) welcomes applications for a position of University Lecturer/Senior University Lecturer. This position requires teaching or engaging in related pedagogical activities for 12 contact hours (per week) each semester at the undergraduate and/or graduate level. The main responsibility of this position will be to organize and supervise capstone software projects at the undergraduate level and MS software projects at the graduate level. These projects are done in collaboration with corporate partners. These companies will

propose projects, and their representatives will co-supervise the students together with the instructor of the course.

Successful candidates must have an MS degree in Computer Science or related area and 5+ years of industrial experience in software development. A PhD degree and prior university teaching experience are an advantage. Candidates should be knowledgeable in software engineering and programming languages (e.g., Java, C/C++, Python). Knowledge in project management, operating systems, computer networks, and databases is an advantage.

APPLYING: Applications received by 10 December 2017 will receive full consideration. However, applications are welcome until the position is filled.

To apply, please visit, please visit *http://jobs.njit.edu* and search for "**req34**". The applications must include a cover letter, a curriculum vitae, and the names and contact information of three references. Supplemental materials and inquiries may be emailed to the Chair of the Department: *http://cs.njit.edu/people/administration/*

To build a diverse workforce, NJIT encourages applications from individuals with disabilities, minorities, veterans and women. EEO employer.

NEW JERSEY INSTITUTE OF TECHNOLOGY University Heights, Newark, NJ 07102-1982

New Mexico Institute of Mining & Technology

Assistant Professor

NEW MEXICO TECH seeks applicants for a tenure-track Assistant or Associate Professor position in its Computer Science and Engineering department.

At the time of appointment, the applicant must have a Ph.D. degree in Computer Science, Information Technology, Computer Engineering, or a very closely related field. Potential for teaching and research excellence are vital qualifications. We seek a candidate with the ability to conduct research in current areas of CS/IT, especially in cybersecurity, cyber-physical systems, machine learning, and data science. The candidate must be willing and able to teach graduate and undergraduate courses in CS/IT, including Systems Programming, and Computer System Organization.

The Department has about 240 students in its B.S., M.S., and Ph.D. programs. Along with excellent facilities for research and teaching, there are opportunities to interact with nearby research institutions such as Los Alamos Laboratory and Sandia Laboratories.

Applicants should submit a letter of interest, resume, contact information of three references, research and teaching statements, and transcripts of graduate work to CSE Tenure-track Search, Human Resources, Box 073, New Mexico Tech, 801 Leroy Place, Socorro, NM 87801. Applications can be sent via e-mail to Rosa Jaramillo (*rosa.jacquez@nmt.edu*) with "CSE Tenure-track faculty" in the email subject and

body. For information on this position send inquiries via e-mail to *secretary@cs.nmt.edu* or visit *https://www.cs.nmt.edu.* Screening will begin immediately and continue until the position is filled. Women and under-represented minorities are encouraged to apply. New Mexico Tech is an equal opportunity/affirmative action employer.

New York Institute of Technology

Two Assistant Professor Positions

NYIT's School of Engineering and Computing Sciences seeks 2 Computer Science Assistant Professors with expertise in Data Science and Computation, including data analytics, machine learning, deep learning, computer vision, artificial intelligence, and natural language processing (full-time, tenure-track; Manhattan Campus & Old Westbury).

Candidates must have a Ph.D. degree in Computer Science, or related area, excellent communication skills, and a solid publication record. Candidates must demonstrate an innovative research record and/or industrial experience, and potential for securing sponsored research, contracts and external grants. Successful candidates will share our vision to grow the School of Engineering and Computing Sciences into a leader in applied research and a premier source of student talent in the New York Metropolitan Area and globally.

Please apply here *https://goo.gl/NCIiFU* for the Manhattan Campus position and here *https://goo.gl/zhKtsn* for the Old Westbury Campus

Northeastern University – College of Computer and Information Science

Lecturer/Assistant Teaching Professor/ Associate Teaching Professor/Full Teaching Professor

Location: Boston Main Campus, Silicon Valley, Seattle, Charlotte

Position Summary:
The College of Computer and Information Science (CCIS) at Northeastern University invites applications for one or more positions at the rank of Lecturer/Assistant Teaching Professor/Associate Teaching Professor/Full Teaching Professor beginning in September 2018 or January 2019 at our campus in Boston and for our regional campuses located in Silicon Valley, Seattle and Charlotte. In Boston we offer undergraduate, masters and PhD programs. In Seattle, Charlotte and Silicon Valley, we offer professional masters programs. We are seeking highly-motivated individuals committed to excellence in teaching. Full-time appointments at all ranks are renewable, career-focused non-tenure-track positions with responsibilities in teaching and service. Primary responsibilities include teaching undergraduate and graduate courses. We are seeking faculty who can teach in one or more of the following areas: Computer Science, Data Science, Cyber Security, Health Informatics and Information Science. The successful candidate will create course content and materials and collaborate with colleagues to develop new academic relationships within the university and the business community. Student advising and service to the college and university are an integral component of the position. Opportunities for research and scholarship are possible on the teaching track and several of our faculty are research active within the field of Computer Science and within the area of Education Research in Computer Science.

Northeastern University is a global university recognized by our renowned co-op program and our focus on experiential learning. We are experiencing dramatic growth in enrollment and academic innovation. The College of Computer and Information Science is one of the fastest growing colleges in the university. It is home to over 1200+ undergraduate students and 1000+ graduate students. We have three undergraduate majors (Computer, Data and Information Science) and over 26 combined majors (CS+X). In the graduate program we offer masters in CS, Data Science, Information Assurance and Cyber Security, Health Informatics and Health Data Analytics. Many of our programs are interdisciplinary programs with other colleges here at Northeastern.

Qualifications:
Candidates must hold a PhD in Computer and/or Information Science from an accredited institution by the start date. Teaching experience at the undergraduate and graduate levels is strongly preferred. Rank of appointment at either the Lecturer, Assistant Teaching Professor, Associate Teaching Professor, or Full Teaching Professor level will be determined on prior teaching experience and will be discussed with candidates during the interview process. Successful candidates will have demonstrated an expert grasp of knowledge of the field at all levels and be creative in their approach to teaching in an environment of cooperative, interdisciplinary and experiential education. Strong written, oral and interpersonal skills are required in order to communicate effectively with students in person and online.

For more information about the College, please visit *http://www.ccs.neu.edu.*

Additional Information: Please submit a cover letter of interest highlighting teaching accomplishments and relevant professional experience, a curriculum vitae, and the names and contact information of at least three references.

Boston Campus　　　*Silicon Valley*

Seattle　　　*Charlotte*

Compensation is commensurate with qualifications and includes an outstanding benefits package.

Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women and persons with disabilities. Northeastern University is an E-Verify Employer.

Ohio State University

Tenure Track Faculty Position in Electrical and Computer Engineering

The Ohio State University invites applications for tenure track faculty positions in the Department of Electrical and Computer Engineering, specifically

Mobile Computing, Computer Architecture, and Cybersecurity.

A successful faculty candidate is expected to have research experience in one of these general fields: cybersecurity, mobile computing, and computer architecture. Interested areas include, but not limited to: cybersecurity; (including hardware-enable security), mobile computing, computer architecture and systems, cloud computing, Internet of things, data center management, embedded and real-time systems, and energy-efficient computer designs.

**For best consideration, please submit your application no later than February 1, 2018
https://academicjobsonline.org/ajo/jobs/10265

Applicants must have a Ph.D. and outstanding academic credentials. Application materials must include: 1) a cover letter, 2) curriculum vitae, 3) statements of research 4) teaching interests, and 5) contact information for three references, and 6) three authored papers.

The Ohio State University College of Engineering is strongly committed to promoting diversity and inclusion in all areas including scholarship, instruction and outreach. This position is partially funded by Ohio State's Discovery Themes Initiative, a significant faculty hiring investment in key thematic areas in which the university can build on its culture of academic collaboration to make a global impact.

The Ohio State University is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation or identity, national origin, disability status, or protected veteran status. Requires the successful completion of a background check.

Ohio State University

Tenure-Track and Tenured Faculty Positions in Computer Science and Engineering

The Computer Science and Engineering Department at The Ohio State University seeks to fill multiple tenure-track and tenured positions at all ranks. We are particularly interested in the following areas: (1) machine learning, and (2) theory and algorithms. Highly qualified applicants in other areas will also be considered. Applicants should hold or be completing a PhD in computer science & engineering or a closely related field, have a commitments to and demonstrated record of excellence in research, and a commitment to excellence in teaching.

Review of applications will begin on December 1, 2017 and will continue until the positions are filled. Additional details and application instructions are available at *https://academicjobsonline.org/ajo/jobs/10250.*

The Ohio State University is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation or identity, national origin, disability status, or protected veteran status.

Purdue University

Faculty Positions in Data Science in Schools of Electrical and Computer Engineering and Industrial Engineering

The Schools of Electrical and Computer Engineering and Industrial Engineering at Purdue University invite applications for multiple positions at the Assistant, Associate, and Full Professor levels. Purdue University seeks to attract exceptional candidates with interests and expertise in data science. Successful candidates must hold a Ph.D. degree in engineering, computer science, operations research, mathematics, statistics or a related discipline and demonstrate excellent potential to build an independent research program at the forefront of their field, as well as potential to educate and mentor students. The successful candidates will conduct original research, will advise graduate students, will teach undergraduate and graduate level courses, and will perform service both at the School and University levels. Candidates with experience working with diverse groups of students, faculty, and staff and the ability to contribute to an inclusive climate are particularly encouraged to apply.

The Schools of Electrical and Computer Engineering and Industrial Engineering at Purdue University have experienced significant growth in the past decade and have a strong faculty core engaged in all areas of data science as well as significant interdisciplinary efforts across campus, with other academic institutions, and industrial partners. The College of Engineering at Purdue is currently undergoing extensive

growth, with an expanding number of faculty that are opening new and exciting research directions. For a detailed description of research activities see the Electrical & Computer Engineering and Industrial Engineering webpages.

Purdue University's Schools of Electrical and Computer Engineering and Industrial Engineering are committed to advancing diversity in all areas of faculty effort, including scholarship, instruction, and engagement. Candidates should address at least one of these areas in their cover letter, indicating their past experiences, current interests or activities, and/or future goals to promote a climate that values diversity and inclusion.

Submit applications online at *https://engineering.purdue.edu/Engr/AboutUS/Employment/Applications*, including curriculum vitae, teaching and research plans, and names of four references. For information/questions regarding applications contact the Office of Academic Affairs, College of Engineering, at *coeacademicaffairs@purdue.edu.* Review of applications will begin on January 18, 2018 and will continue until position is filled. A background check will be required for employment in this position.

Purdue's main campus is located in West Lafayette Indiana, a welcoming and diverse community with a wide variety of cultural activities, events, and industries. Purdue and the College of Engineering have a Concierge Program to assist new faculty facilitate their relocation.

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.

Assistant Professor of Computer Science

The Pennsylvania State University at Harrisburg, School of Science, Engineering and Technology, invites applications for a tenure-track Assistant Professor of Computer Science, effective Fall Semester 2018. The position requires a Ph.D. in Computer Science. Applicants with experience and research interests in software engineering/software design, compilers, or principles of programming languages will be given priority. Individuals with other areas of research interest may also be considered. Candidates will be evaluated on teaching and research potential. Salary level commensurate with qualifications and experience. Faculty are expected to teach courses for the B.S. and M.S. degrees in Computer Science, pursue scholarly research and publication, contribute to curriculum development, participate in University/professional service activities, advise undergraduate and graduate students, and serve on graduate level degree committees. For information on Penn State Harrisburg and the department please visit our websites at hbg.psu.edu and cs.hbg.psu.edu. Review of applications will begin on December 1, 2017 and continue until the position is filled. To apply, please submit a cover letter, curriculum vitae, statement of teaching philosophy and research interests, and the names and contact information of three references.

Apply online at **http://apptrkr.com/1149479**

CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to http://www.police.psu.edu/clery/, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to all qualified applicants without regard to race, color, religion, age, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Reed College

One-Year Visiting Position in Computer Science

Reed College invites applications for a visiting position in computer science, rank open, beginning in the fall of 2018 and continuing through the 2018-19 academic year. Applicants should be committed to excellence in teaching and scholarship. Ideally, applicants should have a Ph.D. in computer science by the time of the appointment, but candidates near completion of that degree or with relevant experience from closely related fields will also be considered. The successful applicant

Professional Opportunities

will teach core and advanced courses in computer science and will also advise year-long senior thesis projects that are required of all Reed students.

Reed is a distinguished liberal arts college with about 1400 students that offers a demanding academic program to bright and dedicated undergraduates. Applicants to the position are encouraged to contact Jim Fix (*jimfix@reed.edu*), the chair of the search committee, before the application deadline for further details about the position and the college's computer science program.

Applicants should submit their applications electronically through the Interfolio service at *http://apply.interfolio.com/48123* and should include a cover letter, curriculum vitae, teaching statement, research statement, and three letters of recommendation. The cover letter should address how the applicant's teaching and scholarship are suited to the liberal arts college environment and how their teaching, scholarship, mentoring, community service, or other activities would support Reed's commitment to diversity and inclusion (see *http://www.reed.edu/diversity*).

Applications will be accepted until the position is filled; applicants are encouraged to submit their materials by February 1st, 2018, to guarantee full consideration.

Reed College is an Equal Opportunity Employer and is committed to building an excellent diverse scholarly community. Members of underrepresented groups are especially encouraged to apply.

Rensselaer Polytechnic Institute

Programmer (Fixed Term)

The Programmer develops, installs, maintains, and integrates new hardware and software to support Culturally Situated Design Tools (CSDT) researchers and projects in a community computing environment.

To apply please visit *http://rpijobs.rpi.edu/postings/5625*

Roosevelt University

The Robert Miner Endowed Professorship in Computer Science

Roosevelt University invites applications for the Robert Miner Endowed Chair in Computer Science. We are seeking an academic leader for our growing Computer Science, Information Technology, and Data Science department. Situated in the midst of Chicago's booming tech community, with a strong endowment and emergent nationally-recognized degree programs in cyber- and information security, the department presents a compelling opportunity for a visionary academic leader.

Candidates with expertise in programming, software development, project management, and academic-industry partnerships are particularly welcomed. Rank open.

The Miner Chair will:
- Provide strategic leadership for the department and coordinate select programs;
- Maintain, create, and build external relations for the department;
- Oversee personnel and budget management;
- Engage in targeted new program development; and
- Teach as commensurate with department need.

Roosevelt University is a private, non-sectarian university with over 5,000 students studying at campuses in Chicago's Loop, suburban Schaumburg and online. Founded on the principles of inclusion and social justice, Roosevelt is the fourth most ethnically diverse college in the Midwest, with a mission to prepare students to assume roles as leaders in their professions and communities.

Qualifications:
- Master's degree in computer science or a related field
- A minimum of five years of academic leadership or industry management experience
- Experience teaching at the undergraduate and/or graduate level

Application instructions available at *https://jobs.roosevelt.edu/postings/4232*

The review of completed applications will begin January 16, 2018, and will continue until the position is filled.

Roosevelt University is an Equal Opportunity Employer.

Singapore University of Technology and Design

Postdoc and PhD positions in blockchain and network security

Details at: *https://pszal.github.io/open_positions*

Smith College

Open-Rank Position in Computer Science

The Department of Computer Science at Smith College invites applications for one or more open-rank, full-time permanent or tenure-track faculty positions in computer science, to begin July 2018. Excellence in teaching and research are required, as is a Ph.D. in computer science, computer engineering, or closely related field.

For more information and to apply, visit *http://apply.interfolio.com/48176.*

Review will begin on February 5, 2018.

EO/AA/Vet/Disability Employer.

Smith College

Assistant Professor Positions in Computer Science

The Department of Computer Science at Smith College invites applications for one, possibly more open-field, tenure-track Assistant Professor positions in computer science, to begin July 2018. Candidates with demonstrated excellence in teaching, an active research program, and ability to work with and inspire diverse student populations encouraged to apply. Ph.D. expected by time of appointment.For more information

and to apply, visit *http://apply.interfolio. com/44360.* Review will begin on October 15, 2017. EO/AA/Vet/Disability Employer.

State University of New York at Binghamton

The Department of Computer Science

http://cs.binghamton.edu

The Computer Science Department at Binghamton University has two tenure-track assistant professor positions beginning Fall 2018. Applicants should have a Ph.D. in Computer Science or related discipline, a strong research record, and a commitment to research and teaching. Qualified applications are invited from candidates with specializations in any of the following areas: (1) Data Science/Data Analytics/Core Machine Learning, and (2) Computer Architecture.

Further details and application information are available at: *http://binghamton. interviewexchange.com.*

Applications will be reviewed until positions are filled. First consideration will be given to applications received by **March 1, 2018.**

Binghamton University is an Equal Opportunity/Affirmative Action/Disability/ Veterans Employer.

SUNY College at Plattsburgh

Lecturer, Computer Science

For position details and application process, visit *http://jobs.plattsburgh.edu* and select "View Current Openings"

SUNY College at Plattsburgh is a fully compliant employer committed to excellence through diversity.

Trinity College

Visiting Assistant Professor/Visiting Lecturer in Computer Science

Applications are invited for a two-year position at the rank of Visiting Assistant Professor or Visiting Lecturer to start in Fall 2018.

Applications should be submitted to: *https://trincoll.peopleadmin.com/.*

Consideration of applications will begin on February 15, 2018.

The University of Alabama at Birmingham

Associate/Professor of Computer Science

The Department of Computer Science (CS) at the University of Alabama at Birmingham (UAB) is seeking candidates for a tenured faculty position at the Associate or Full Professor rank beginning Fall 2018. For additional information about the Department, please visit: *http://www.cs.uab.edu/.*

Candidates with expertise in all core CS areas are sought, with preference given to Data Centric Disciplines (broadly defined, including but not limited to machine learning, data mining, big data, data and cyber security, high-performance computing, and modeling and simulation of data intensive systems). UAB has made a significant commitment to both research

and teaching in Computer Science. Candidates must consequently have strong research and teaching credentials. Experience and success in funded research is required for this position. Successful candidate will have the opportunity to establish and lead a data-centric research center that will be housed in the College of Arts and Sciences (CAS). UAB is a Carnegie "Very High Research Activity" University.

The CS Department at UAB offers PhD, MS, BS, and BA programs. The Department has a strong research focus, and a strong commitment to teaching, service, and outreach. The goal is to grow the PhD, MS, and BS significantly over the next several years. Research funding is expanding significantly, and the Department has a leadership role in a Center focusing on Cyber Security. Collaborations with UAB's medical enterprise are strong and growing, with many opportunities for faculty to participate in interdisciplinary work.

A Ph.D. in Computer Science or a closely related field is required. Applications should include a curriculum vitae, a list of publications and scholarly achievements, a statement of future research plans, a statement of teaching experience and philosophy, and at least three reference letters. Applications and all other materials (including reference letters) should be submitted through UAB's portal at People Admin: *https://uab.peopleadmin.com.*

Review of candidates will begin January 15, 2017, and the search will continue until the position is filled.

UAB is an Equal Opportunity/Affirmative Action Employer committed to fostering a diverse, equitable and family-friendly environment in which all faculty and staff can excel and achieve work/life balance irrespective of ethnicity, gender, faith, gender identity and expression as well as sexual orientation. UAB also encourages applications from individuals with disabilities and veterans. A pre-employment background investigation is performed on candidates selected for employment.

The University of Alabama at Birmingham

Assistant Professor in Computer Science

The Department of Computer Science (CS) at the University of Alabama at Birmingham (UAB) is seeking candidates for a tenure-track faculty position beginning Fall 2018. While preference is given to candidates at the Assistant Professor rank, highly qualified candidates at Associate Professor and Professor rank will also be considered. For additional information about the Department, please visit: *http://www.cs.uab.edu/.*

Candidates with expertise in all core CS areas are sought, with preference given to Advanced Computing Systems (broadly defined, including large-scale systems, distributed/parallel systems, and software systems). UAB has made a significant commitment to both research and teaching in Computer Science. Candidates must consequently have strong research and teaching credentials. Experience and success in funded research is desirable for junior-level candidates, and required for senior-level candidates. UAB is a Carnegie "Very High Research Activity" University.

The CS Department at UAB offers PhD, MS, BS, and BA programs. The Department has a strong research focus, and a strong commitment to teaching, service, and outreach. The goal is to grow the PhD, MS, and BS significantly over the next several years. Research funding is expanding significantly, and the Department has a leadership role in a Center focusing on Cyber Security. Collaborations with UAB's medical enterprise are strong and growing, with many opportunities for faculty to participate in interdisciplinary work.

A Ph.D. in Computer Science or a closely related field is required. Applications should include a curriculum vitae, a list of publications and scholarly achievements, a statement of future research plans, a statement of teaching experience and philosophy, and at least three reference letters. Applications and all other materials (including reference letters) should be submitted through UAB's portal at People Admin: *https://uab.peopleadmin.com.*

Review of candidates will begin January 15, 2017, and the search will continue until the position is filled.

UAB is an Equal Opportunity/Affirmative Action Employer committed to fostering a diverse, equitable and family-friendly environment in which all faculty and staff can excel and achieve work/life balance irrespective of ethnicity, gender, faith, gender identity and expression as well as sexual orientation. UAB also encourages applications from individuals with disabilities and veterans. A pre-employment background investigation is performed on candidates selected for employment.

University of Alberta
SCI Computing Science

Research Professor and Tenure-track Professor Positions in Artificial Intelligence

Competition No. – AI05034675
Closing Date – Mar 01, 2018

The Department of Computing Science at the University of Alberta invites applications for tenure-track or tenured faculty positions at all levels. Candidates with a strong research record in the area of Artificial Intelligence (AI), in particular (but not limited to) Machine Learning, Natural Language Processing, Computer Games, Visualization, Security, and Algorithmic Game Theory, will be considered for this position.

According to *csrankings.org* the department is ranked #1 in Canada and averaged #3 in the world in terms of number of publications at top AI venues in the last 10 years, and it is also home to Amii (*www.amii.ca*), the Alberta Machine Intelligence Institute, formerly known as AICML. It is noteworthy that the 2017 Government of Canada Budget included an investment of $125 million into a Pan-Canadian Artificial Intelligence Strategy which features a major investment in research at the University of Alberta. According to the most recent Times Higher Education World University ranking, the department is ranked 3rd in Canada and 67th in the world. The department is home to 46 tenured and tenure-track faculty members, and over 200 graduate students in its Ph.D. and M.Sc. programs. The University of Alberta is home to over 31,000 undergraduate students, 7,600 graduate students, and 600 postdoctoral fellows.

Successful candidates will have strong communications skills and also demonstrate a commitment to highly effective graduate and undergraduate teaching. They will establish their own funded research programs, supervise graduate students, and teach graduate and undergraduate courses. Strong potential for productive interactions with researchers in the department or in other disciplines at the University of Alberta will be considered an asset. The candidate must hold a Ph.D. (or equivalent) degree by the appointment date.

Applicants are asked to submit the following (all files must be submitted in PDF format):

- a full curriculum vitae,
- a 1-2 page research statement which should (1) highlight contributions to their field of research, (2) present an overview of their planned research program for ~5 years after initial appointment, and (3) describe how the candidate will interact, collaborate with and complement other researchers at the University of Alberta
- a 1-page teaching statement including their experience and interests
- their most significant peer-reviewed published contribution to their field of research

Each applicants must also ensure that three referees will submit (through the submission website) confidential reference letters about their accomplishments and their potential as an independent researcher.

A successful candidate for the position may be considered as a nominee for, a funded/endowed research chair position, if the appointment advances the strategic considerations of the Department of Computing Science, the Faculty of Science and the University of Alberta.

All applications are to be submitted at *https://academicjobsonline.org/ajo/jobs/10572* and complete applications and all reference letters must be received by March 1, 2018.

For further information please email the Department Chair's Executive Assistant at *cs.ea@ualberta.ca* (please use "AI Faculty Position" as the email's subject).

To assist the University in complying with mandatory reporting requirements of the Immigration and Refugee Protection Act (R203(3)(e)), please include the first digit of your Canadian Social Insurance Number in your application (within your cover letter). If you do not have a Canadian Social Insurance Number, please indicate this in your application (within the cover letter).

Interested applicants may apply to:
E-mail: *https://academicjobsonline.org/ajo/jobs/10572*

http://www.careers.ualberta.ca/Competition/AI05034675/

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

The University of Alberta is committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Métis and Inuit persons; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply.

University of California, Davis

Lecturer with Potential Security of Employment/Lecturer with Security of Employment Position

Department of Computer Science

Applications are invited for 2-3 Lecturers with Potential Security of Employment positions in Computer Science. We will consider all levels of candidates including Lecturers with Security of Employment (LSOE) and Senior Lecturers with Security of Employment (SOE), depending on experience and qualifications. This position parallels the position of a professor with tenure but with primarily teaching duties and teaching/curriculum related service activities. The successful candidate will teach computer science engineering courses (primarily at the undergraduate level). The responsibilities include the teaching of core courses including

laboratories, continuous improvement of curriculum, participation in accreditation activities, and development of new educational initiatives. Participation in scholarly/creative activities is required. Successful submission and funding of grants related to education is strongly encouraged. The candidate will also have the opportunity to lead research projects, particularly for undergraduate students, and to develop newer seminars/courses with broad appeal in areas that influence computer science and engineering education. The candidate should have a strong teaching record and commitment to undergraduate instruction. Candidates with experience or willingness to engage in activities that contribute to diversity and inclusion are especially encouraged to apply. A Ph.D. in computer science engineering or a closely related discipline is required.

Consult *https://recruit.ucdavis.edu/apply/JPF01979* for our on-line application procedure and requirements. The position is open until filled; but to ensure full consideration, applications should be submitted by February 28th, 2018, for a possible start date of July 1, 2018.

UC Davis is an affirmative action equal opportunity employer, and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, individuals with disabilities, and veterans.

University of California, Irvine

Faculty Positions – Department of Electrical Engineering and Computer Science

Description
The Department of Electrical Engineering and Computer Science at the University of California, Irvine invites applications for multiple tenure-track faculty positions whose research interests falls into one of the following three areas (1) Intersection of Life Sciences and Electrical Engineering and Computer Science (2) Big Data, or (3) Security for Engineered Systems. Candidates will be considered at either the assistant or associate professor level depending on applicant's level of experience and qualifications.

1) Intersection of life sciences & electrical engineering & computer science
Interfaces with life could be at the molecular, cellular, organ, or whole organism level. Areas include, but are not limited to convergent science and technology in: novel microscopy and imaging techniques, electrical and photonic sensing, wireless and implantable monitoring, exploitation of new spectral regions (such as far-infrared, terahertz), monitoring and stimulation of neural systems, and any other technical areas that utilize the disciplines of EECS to address human health.

2) Big Data
Areas include, but are not limited to theoretical foundations and algorithms in machine learning, data mining, signal processing; big data analytic systems

for high-performance and scalable computing, software/hardware architectures, and networked systems; applications include, but are not limited to, Internet-of-Things, manufacturing, smart cities, and other domains.

3) Security for Engineered Systems

Areas include but are not limited to: (i) theoretical foundations at the intersection of hardware and software system security; (ii) specification, design, validation, and verification of security for cyber-physical systems within the critical infrastructure, e.g., power grid system, transportation, manufacturing, medical devices, etc.; (iii) formal methods for securing systems; (iv) intrusion detection and defense; (v) supply-chain security, e.g., semiconductor hardware; (vi) system security for IoT systems.

Applicants are expected to have a doctoral degree in Electrical Engineering, Computer Science or related field from an accredited university. Successful candidates will be innovative leaders that can develop a vigorous externally funded research program, maintain a strong publication record, advise students, and provide outstanding teaching at the undergraduate and graduate levels.

Applications should apply to one of above three categories, include a cover letter, a statement of research and teaching interests, a curriculum vitae, list of publications, up to three key publications, a statement describing a commitment to diversity, and the names and contact information of at least three to five references. References will not be contacted until later stages of consideration, in consultation with the candidate.

Applications should be submitted electronically. Instructions may be found at *https://recruit.ap.uci.edu/apply/JPF04412.* Screening will begin immediately upon receipt of a completed application. Applications will be accepted until the position is filled, although maximum consideration will be given to applications received by February 15, 2018.

The University of California, Irvine is part of the premier public university system in the world. UCI is a member of the Association of American Universities (AAU), is ranked as a top ten public university by U.S. News and World Report, and was identified by the New York Times as No. 1 among U.S. universities that do the most for low-income students. UCI is located in Orange County, 4 miles from the Pacific Ocean and 45 miles south of Los Angeles. Irvine is one of the safest communities in the U.S. and offers a very pleasant year-round climate, numerous recreational and cultural opportunities, and one of the highest-ranked public-school systems in the nation.

The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer advancing inclusive excellence. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories covered by the UC nondiscrimination policy.

Information about the department available at *http://engineering.uci.edu/dept/eecs*

University of Cambridge

Computational Biology Postdoc Position: Pathways from single-cell CRISPR data

The Markowetz lab at the Cancer Research UK Cambridge Institute is looking for two postdoctoral researchers to work on inferring cellular networks from single cell RNA-seq profiles after CRISPR perturbations.

Full details at *http://www.markowetzlab.org/positions.php*

University of Central Florida

Associate Professor in Disability, Aging Technology Cluster

The University of Central Florida (UCF) has established several interdisciplinary clusters to strengthen its academic offerings and research mission. The Disability, Aging, and Technology (DAT) cluster is seeking to hire one tenured associate professor to facilitate research collaborations, secure external funding, and demonstrate a strategic vision for developing educational programs that link health and wellness interventions with technology applications. Some areas of expertise may include human-computer interaction, design and evaluation of sociotechnical systems for health domains, robotics and assistive technologies, health informatics or data analytics, or the intersection of aging/disability research with technology-focused interventions. Exceptionally well-qualified candidates will be considered for the "Cluster Lead" designation. The selected candidate should exhibit the desire/ability to act as a bridge between cluster

CRA Computing Research Association

faculty in human/technology sciences to build synergistic collaborations across the university. A strong desire for and track record of working in interdisciplinary teams is preferred. This position has an anticipated start date of August 2018.

DAT is a partnership among six colleges/units: the Colleges of Health and Public Affairs, Nursing, Sciences, Engineering and Computer Science, Hospitality Management, and the Nanoscience Technology Center. The successful candidate will be expected to strengthen both the cluster and their chosen tenure home department. The candidate will be able to choose their tenure home from the aforementioned colleges and cluster faculty are also encouraged to seek joint appointments with other units where appropriate.

UCF is one of the nation's largest universities with a diverse student body and has grown substantially in size, quality, diversity, and reputation in its first 50 years. UCF offers more than 200 degree programs at its main campus in Orlando, attracting and supporting industries vital to the region while providing students with real-world experiences that help them succeed after graduation. We encourage you to learn more about UCF at *https://www.ucf.edu/faculty/faculty-research-clusters/.*

UCF requires all applications and supporting documents to be submitted electronically through the Human Resources website. This position is located at *http://www.jobswithucf.com/postings/51350.*

As an equal opportunity/affirmative action employer, UCF encourages all qualified

applicants to apply, including women, veterans, individuals with disabilities, and members of traditionally underrepresented populations. UCF's Equal Opportunity Statement can be viewed at: *http://eeo.ucf.edu/documents/PresidentsStatement.pdf.* As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.

Review of applications will begin immediately and continue until the position is filled.

University of Central Florida

Tenure-Track Faculty Position, Deep Learning

http://www.ucf.edu/faculty/
The Center for Research in Computer Vision (CRCV) at UCF (*www.ucf.edu*) solicits applications for a tenure-track Assistant Professor position in the area of Deep Learning. CRCV (http://www.crcv.ucf.edu) is the world class leader in the computer vision research and related disciplines, including but not limited to the algorithmic aspects of deep learning and their applications in computer vision.

University of Central Florida

Assistant or Associate Professor, Computer Science

The Department of Computer Science (CS) at the University of Central Florida (UCF) is seeking applicants for two faculty positions with an anticipated start date of August 8, 2018. The positions will carry the rank of assistant or associate professor.

Rank (and tenure for associate professors) will be based on the candidate's prior experience and record.

The department is particularly interested in candidates with experience in the areas of human computer interaction, virtual reality, robotics, data science, algorithms, theory of computing, financial technology, and software engineering and systems. However, all relevant technical areas will be considered. The ideal candidate will have a strong research background and be on an upward leadership trajectory in their research area. They will have research impact, as reflected in high-quality publications and the ability to build a well-funded research program.

The CS Department is home to the first computer science Ph.D. program in the state. Its 38 tenured and tenure-track faculty are engaged in world-class research in Computer Vision, AI and Machine Learning, Virtual Reality, HCI, data analytics, cyber security and privacy, and several other areas. The department has both CS and IT undergraduate degrees accredited by ABET, M.S. degrees in CS, Digital Forensics, and Data Analytics and, a Ph.D. in CS. To learn more about the department see *http://www.cs.ucf.edu/.*

UCF is one of the nation's largest universities. As an economic engine, UCF attracts and supports vital industry to Orlando. UCF is located at the center of the Florida High Tech Corridor where industries include software, defense, space, simulation and training, and entertainment. Next to UCF is a thriving research park that conducts over $2 billion in

funded research. Great weather, easy access to the seashore, one of the largest convention centers in the nation, and one of the world's best airports are just a few features that make Orlando an ideal location. Learn more about UCF at *http://www.ucf.edu/faculty.*

Applicants must have a Ph.D. from an accredited institution in an area appropriate to the department, including Computer Science, Computer Engineering, or Mathematics by the time of the appointment.

In order to obtain tenure, the selected candidate must have a demonstrated record of teaching, research and service commensurate with rank in the tenure department.

As an equal opportunity/affirmative action employer, UCF encourages all qualified applicants to apply, including women, veterans, individuals with disabilities, and members of traditionally underrepresented populations. UCF's Equal Opportunity Statement can be viewed at: *http://eeo.ucf.edu/documents/PresidentsStatement.pdf.* As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.

Candidates must apply online at *www.jobswithucf.com* and attach the following materials: a cover letter, curriculum vitae, teaching statement, research statement, and contact information for three professional references.

NOTE: Please have all documents ready when applying so they can be attached at that time. Once the online submission process is finalized, the system does not allow applicants to submit additional documents at a later date.

For questions regarding this opportunity, please contact the department via email at *cssearch@cs.ucf.edu.*

UCF Stands For Opportunity

University of Central Florida (UCF)

Department of Electrical & Computer Engineering (ECE)

The department has openings for exceptional tenured or tenure-track faculty members, three in ECE as well as multiple in UCF's energy systems and cyber security clusters.

All areas of ECE are considered. Of special interests are mid-career or entry-level candidates in controls, brain monitoring and biomedical sensing, high-frequency circuits, machines and drives, power devices, robotics, energy harvesting and storage, energy efficient computing, embedded systems, GPU design and multicore systems, embedded software, mobile computing devices, IoT, and big data.

The cluster of Resilient, Intelligent and Sustainable Energy Systems (RISES) has one open faculty position at the entry-level level. The areas of interest include infrastructure systems, smart city and connected community. More details can be found at our cluster website http://www.ucf.edu/research/RISES.

The cluster of Cyber Security and Privacy has multiple open positions, and the areas of interests relevant to ECE are IoT security and secure cyber physical systems.

UCF offers a competitive salary and start-up package as well as generous benefits. New faculty members have graduate student support and significantly reduced teaching loads during their first two years of tenure-track employment.

All applicants must have a Ph.D. in an area appropriate to the ECE disciplines by the start of the appointment and a strong commitment to academic activities, including teaching, scholarly publications and sponsored research. Successful candidates will have an exceptional record of scholarly research and, at the senior levels, be highly recognized for their technical contributions and leadership in their areas of expertise.

ECE has strong educational and research programs, with over 300 graduate students and 1,000 undergraduates, and a state-of-the-art facility, the Harris Engineering Center. The department has three competitively-awarded research centers: FEEDER funded by Department of Energy, the Electric Vehicle Research Center funded by the US Department of Transportation, and MIST funded by NSF. Additional research sponsors include DARPA, NASA, ARO, AMD, Analog Devices, Harris, Intel, L-3 Communication, Leidos, Lockheed Martin, Siemens, and Texas Instruments as well as local high-tech start-ups.

UCF has over 63,000 students and is the nation's second largest university. Located in Orlando, ECE and UCF are at the center of Florida High Tech Corridor with an excellent industrial base in telecommunications, energy, computer systems, semiconductors, defense, space, lasers, simulation, software and the world-renowned entertainment/theme park industry. Exceptional weather, easy access to the seashore, one of the largest convention centers in the nation and an international airport that is among the world's best are just a few features that make the UCF/Orlando area ideal.

UCF is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply, including minorities, women, veterans and individuals with disabilities. As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.

Please send your inquiry to facultysearch@ece.ucf.edu for ECE positions or to RISES@ece.ucf.edu for RISES positions. To submit an application, go to the following link(s).

ECE positions: http://www.jobswithucf.com/postings/50748
RISES Cluster position: https://www.jobswithucf.com/postings/50414
Cyber Cluster positions: https://www.jobswithucf.com/postings/50404

University of Colorado Boulder

Open Rank Instructor of Information Science

The newly established Department of Information Science at the University of Colorado Boulder seeks outstanding candidates for a non-tenure track open rank instructor position starting in Fall 2018. Successful candidates will help shape the future of Information Science—as a Department and as a discipline. With a faculty with strengths in both computer science and the social sciences, the Department takes a progressive approach to the discipline of Information Science, focusing on human-data interaction in all its diverse forms and contexts.

The primary responsibility of the instructor will be to teach multiple lower-division undergraduate courses in computing and computational thinking. Candidates must have earned a graduate degree, and have demonstrable experience in classroom teaching of undergraduate students in computing- and information science-related topics, especially to novices. Candidates must show evidence of commitments to high-quality teaching and to creating an educational environment that is welcoming to a diverse body of students.

The University of Colorado is an Equal Opportunity/Affirmative Action Employer committed to building a diverse workforce. We encourage applications from women, racial and ethnic minorities, individuals with disabilities and veterans.

For more information and to apply, see the official ad at *https://cu.taleo.net/careersection/2/jobdetail.ftl?job=11550.*

University of Colorado Boulder

Faculty Positions in Data Science, Machine Learning, and Security

The College of Engineering and Applied Science at the University of Colorado Boulder invites applications for two tenure-line faculty positions beginning Fall 2018. This is an interdisciplinary search in data science, machine learning, and security, conducted by the Departments of Computer Science, Electrical, Computer and Energy Engineering, and Aerospace Engineering Sciences. Candidates are encouraged to demonstrate interdisciplinary work and must clearly indicate their areas of relevant research expertise in their cover letters. Successful candidates will be rostered in suitable home departments within the College.

Candidates are expected to complement and strengthen the existing college research portfolio or develop new high-impact research directions. A demonstrated ability/record of excellence working with and contributing to a climate that attracts and supports students of all races, nationalities, and genders is expected. A successful candidate has a doctorate in computer science or engineering or a closely related scientific field, a significant commitment to scholarship, the potential to develop a successful externally funded research program, and ability to teach at both the undergraduate and graduate levels in computer science and engineering. One position is at the assistant professor level, and the other position is open as to rank.

By January 15, 2018, interested persons should apply through the web site *http://www.cu.edu/cu-careers* (job 11159) and submit electronic files (pdf format) containing a cover letter, curriculum vita, two-page statements of research and teaching interests, and the names, addresses, and telephone numbers of at least three professional references. Review of applications will begin immediately, and will continue until the positions are filled. Additional information regarding the College of Engineering search process as well as our research and academic programs can be found at *http://www.colorado.edu/engineering/.*

The University of Colorado is an Equal Opportunity Employer committed to building a diverse workforce. We encourage applications from women, racial and ethnic minorities, individuals with disabilities and veterans. Alternative formats of this ad can be provided upon request for individuals with disabilities by contacting the ADA Coordinator at: *hr-ada@colorado.edu.* The University of Colorado Boulder is committed to providing a safe and productive learning and living community. To achieve that goal, we conduct background investigations for all final applicants being considered for employment.

University of Colorado

Associate/Full Professor of Information Science

The recently established Department of Information Science in the College of Media, Communication and Information at the University of Colorado Boulder seeks outstanding candidates for a regular faculty appointment at the associate professor or professor level. Successful candidates will help shape the future of Information Science—as a Department and as a discipline. With a faculty with strengths in both computer science and the social sciences, the Department takes a progressive approach to the discipline of Information Science, focusing on human–data interaction in all its diverse forms and contexts.

We are open to any research specialty area in information science, though we have a particular interest in candidates who work in machine learning or visualization. We expect the successful candidate to take a strong role in the organizational and intellectual life of the department. Applications will be evaluated beginning January 5, 2018. The search will continue until the position is filled.

The University of Colorado is an Equal Opportunity Employer committed to building a diverse workforce. We encourage applications from women, racial and ethnic minorities, individuals with disabilities, and veterans. For more information and to apply, see *https://cu.taleo.net/careersection/jobdetail.ftl?job=11961&lang=en.*

University of Connecticut

Assistant Professor (Tenure Track)

The Computer Science & Engineering (CSE) Department at the University of Connecticut invites applications for a tenure track faculty position at the assistant professor level. The position is expected to start on August 23, 2018. The department is looking for a Computer Scientist specializing in Machine Learning or Data Mining with applications in manufacturing.

Visit *academicjobsonline.org/ajo/jobs/10093* to apply.

University of Illinois at Chicago

Open-rank tenure-track faculty positions

Located in the heart of Chicago, the Computer Science Department at the University of Illinois at Chicago (UIC) invites applications for many full-time tenure-track positions at all ranks. All candidates must have a doctorate in Computer Science or a closely related field by the appointment's starting date. Candidates will be expected to demonstrate excellence in research and teach effectively at the undergraduate and graduate levels.

We seek candidates in all areas of computing, at all levels, with special but not exclusive interest in fields related to speech and/or natural language processing, computer vision, programming languages and compilers, machine learning, human-computer interaction, data science, and computer systems. Over the next few years, we expect to hire multiple faculty in all of those areas

and many others. Applicants working at the intersection of computer science and related disciplines are also encouraged to apply.

Applications must be submitted at *https://jobs.uic.edu/,* and must include a curriculum vitae, teaching and research statements, and names and addresses of at least three references in the online application. Links to a professional website and Google Scholar, ResearchGate, or similar profiles are recommended, but not required. Applicants may contact the Faculty Search Chair at *search-chair@cs.uic.edu* for additional information. For fullest consideration, apply by November 15, 2017. Applications will be accepted until the positions are filled.

The rapidly growing department of Computer Science at UIC has 33 tenure-system faculty – 13 of whom are NSF CAREER award recipients – with strong and broad research agendas. The department is committed to building a diverse faculty preeminent in its missions of research, teaching, and service to the community. Candidates who have experience engaging with a diverse range of faculty, staff, and students, and contributing to a climate of inclusivity are encouraged to discuss their perspectives on these subjects in their application materials.

UIC is a major public research university (R1, according to the Carnegie Classification of Institutions of Higher Education) with over 1,900 faculty and over 30,000 students. UIC is committed to increasing access to education, employment, programs and services for all. The University of Illinois is an Equal Opportunity, Affirmative Action employer.

Minorities, women, veterans, and individuals with disabilities are encouraged to apply. UIC is responsive to the concerns of dual-career couples.

Chicago epitomizes the modern, livable, vibrant, and diverse city. World-class amenities like the lakefront, arts and culture venues, festivals, and two international airports make Chicago a singularly enjoyable place to live. Yet the cost of living, whether in an 88th floor condominium downtown or on a tree-lined street in one of the nation's finest school districts, is remarkably affordable.

University of Louisiana at Lafayette

Postdoc Openings

Position Description
The Director of Data and Design Nest is seeking two Postdoctoral Researchers. One will work in the application of IoT and AI in Agriculture/Health/Smart Cities, and the other in the development of augmented reality solutions for healthcare. Candidates are invited to define their own research agendas and demonstrate the ability to drive forward effective research programs. Fellows will receive guidance and support from world class researchers and will have the opportunity to negotiate a set of goals to achieve by the end of their appointments.

Institutional Capabilities
Postdocs will be housed in the Center for Advanced Computer Studies, one of the first schools in the country to offer advanced Computer Science degrees. The center has strong connections with the Informatics

Research Institute that houses four centers dedicated to unleashing the potential of big data for the benefit of society, in areas such as health, crisis response, community resilience, and smart and connected communities. With connections and guidance from diverse researchers at IRI, the fellows will conduct fast-paced research. Learn more about IRI here (*https://iri.louisiana.edu/*).

Application Details
Successful candidates will have PhDs and well-established research track records, as demonstrated by journal publications and conference papers, as well as participation on program committees, editorial boards, and advisory panels. The selected fellows will receive competitive salaries. The initial appointment will be for a period of one-year and may be extended for another 6-months depending on the availability of funds. To be considered, email a cover letter specifying position of interest, along with a research proposal and CV to beenish.*chaudhry@louisiana.edu.* The positions will stay open until suitable candidates have been identified.

University of Massachusetts Boston

Lecturer in Information Technology

Department of Computer Science

The Department of Computer Science at UMass Boston seeks applications for non-tenure-track lecturers whose primary responsibility will be to teach in our undergraduate Information Technology major beginning in Spring 2018. Initial appointment would be for one semester, but renewals are possible (and expected) for the right person.

Lecturers provide instruction at the undergraduate level in the Department of Computer Science (*http://www.cs.umb.edu*) in a range of information technology topics. We offer a concentration in system administration, and knowledge of administering Linux and Windows systems is desirable.

Prior experience in teaching Information Technology or Computer Science at the University level; Significant prior experience in the Software or Information Technology industry. Master's or higher degree in Computer Science or Information Technology required.

Please submit your application consisting of a CV with a cover letter, a statement about your teaching and work experience and the names and email addresses of three references to *http://umb.interviewexchange.com/jobofferdetails.jsp?JOBID=92377*

UMass Boston provides equal employment opportunities to all employees and applicants for employment without regard to race, color, religion, gender, gender identity or expression, age, sexual orientation, national origin, ancestry, disability, military status, or genetic information. This policy applies to all terms and conditions of employment.

University of Massachusetts Boston

Assistant/Associate Professor

Department of Computer Science

The Computer Science Department at the University of Massachusetts Boston invites applications for one full-time position in Programming Languages/Compilers at the rank of Assistant/Associate Professor, to begin September 1, 2018. We offer an ABET-accredited BS as well as a BA in Computer Science, a BS in Information Technology, an MS in Computer Science, and a PhD in Computer Science. Current faculty interests include bioinformatics, computer and human vision, data mining, databases, graphics, high performance computing, networks, security, software engineering, and theoretical computer science. We will consider strong candidates in any area of programming languages, but especially seek candidates working in programming language implementation, with an emphasis on parallel computation.

A PhD in computer science or a related area is required. A successful candidate at the Assistant Professor level is expected to establish a highly-recognized, externally-funded independent research program at UMass Boston. Candidates at the Associate Professor level should have a well-established research program with a significant funding record. We offer a competitive salary and start-up package.

To Apply:
A complete application consists of a cover letter, curriculum vitae, statements about research and teaching, and the names and email addresses of three references. Please submit your application at: *http://umb.interviewexchange.com/jobofferdetails.jsp?JOBID=91175*

Our campus overlooks Boston harbor; our faculty and students enjoy professional life in a center of academia and the software industry. For more information, visit us at *http://www.cs.umb.edu*

Review of applications has begun and will continue until the position is filled.

The University of Massachusetts Boston provides equal employment opportunities to all employees and applicants for employment without regard race, color, religion, gender, gender identity or expression, age, sexual orientation, national origin, ancestry, disability, military status, or genetic information. In addition to federal law requirements, the University of Massachusetts Boston complies with applicable state and local laws governing nondiscrimination in employment in every location in which the university operates. This policy applies to all terms and conditions of employment.

University of Memphis

Assistant Professor Computer Science

The Department of Computer Science at the University of Memphis is seeking candidates for multiple Assistant Professor positions beginning Fall 2018. Exceptionally qualified candidates in all areas of computer science are invited while candidates with core expertise in systems, architecture, data science, security & privacy, and software engineering and an interest in emerging and interdisciplinary applications such as smart health, smart cities, smart transportation, smart energy, and CS education are particularly encouraged to apply. Successful candidates are expected to develop externally sponsored research programs, teach both undergraduate and graduate courses and provide academic advising to students at all levels.

Applicants should hold a PhD in Computer Science, or related discipline, and be committed to excellence in both research and teaching. Salary is highly competitive and dependent upon qualifications.

The Department of Computer Science (*www.cs.memphis.edu*) offers B.S., M.S., and Ph.D. programs as well as graduate certificates in Data Science and Information Assurance, and an M.S. program in Bioinformatics (through the College of Arts and Sciences). The Department has been ranked 55th among CS departments with federally funded research. The Department regularly engages in large-scale multi-university collaborations across the nation. For example, CS faculty lead the NIH-funded Big Data "Center of Excellence for Mobile Sensor Data-to-Knowledge (MD2K)" and the "Center for Information Assurance (CFIA)". In addition, CS faculty work closely with multidisciplinary centers at the university such as the "Institute for Intelligent Systems (IIS)".

Known as America's distribution hub, Memphis ranked as America's 6th best city for jobs by Glassdoor in 2017. Memphis metropolitan area has a population of 1.3 million. It boasts a vibrant culture and has a pleasant climate with an average temperature of 63 degrees.

Professional Opportunities

Screening of applications begins immediately. For full consideration, application materials should be received by December 1, 2017. However, applications will be accepted until the search is completed.

To apply, please visit *https://workforum.memphis.edu/.* Include a cover letter, curriculum vitae, statement of teaching philosophy, research statement, and three letters of recommendation. Direct all inquiries to Corinne OConnor (*cconnor2@memphis.edu*).

A background check will be required for employment. The University of Memphis is an Equal Opportunity/Equal Access/ Affirmative Action employer committed to achieving a diverse workforce.

University of Pittsburgh

Multiple Tenure-track and Non-tenure Track Positions

The **University of Pittsburgh** (Pitt) is undertaking an ambitious multi-year plan to create a **School of Computing and Information** (SCI) that will serve as the nexus of computing and information throughout Pitt. SCI was launched in July 2017, with the appointment of Paul Cohen, previously with DARPA, as Founding Dean. SCI aims to create and harness data-driven technology, science and expertise to improve the safety, security, robustness, performance and understanding of complex, interacting natural, social and engineered systems for the betterment of the world. Predictive modeling and insightful analysis for evidence-based decision-making, in the context of these interacting systems, is key to this mission.

SCI has multiple openings at all levels, in all areas of computing and information research and education. These positions offer exciting opportunities to be a part of a new academic unit that aspires to be an international leader in agile and trans-disciplinary methods to solve problems and make discoveries of the greatest importance. Individuals will have the chance to play a leading role in developing this academic unit, which can act as a model for other universities to also transform themselves around computing and information.

Tenure-Track Positions

For the tenure track, SCI seeks individuals who think and work across traditional boundaries and who see themselves as dynamic cross-disciplinary players. While individuals working in fundamental areas of computing and information are encouraged to apply, SCI recognizes that expertise fulfilling its mission may fall outside of these areas, and the School strongly encourages individuals working in relevant non-traditional areas to also apply. Topics of particular interest include, but are not limited to, domain-oriented modeling and analysis; computationally- and data-driven causal methods for scientific and medical discovery; secure, robust and high-performance frameworks for modeling and management of interacting systems; and, theory and methods of knowledge reuse through data management, stewardship and reproducibility, as well as socio-technical systems and the nature of human interaction with information and data.

We also aim to jointly fill a tenure-track position with Pitt's Learning Research and

Development Center (LRDC). This center is advancing the science of learning in an established multi-disciplinary setting, where learning is studied in its cognitive, neural, social and organizational aspects, making research and development links to formal education practice, policy and out-of-school settings. For this position, we seek a researcher–educator who uses computing or information science to address issues of learning and education, particularly from a systems viewpoint. This person would join a small, collaborative core of current faculty who have expertise in artificial intelligence applied to learning and reasoning, computational linguistics, knowledge representation, natural language learning, and spoken language dialogues. Exemplary specialties could include, among others, the use of big data in educational improvement, AI in education, technology-enhanced learning, natural language applications for education, personalized learning, and computational thinking and education. While all candidates with relevant experience will be considered, we are particularly interested in individuals at the advanced Assistant or Associate Professor levels, who have an established research program in an area related to learning and education.

Non-Tenure-Track Positions

Non-tenure track positions are also available. These positions are renewable and offer exciting career paths to teach and develop novel undergraduate programs, including the rethinking of curriculum to reflect emerging concepts, new skills and the deep entwinement of computing and information into other disciplines. Such programs are essential to train polymaths who understand the

Professional Opportunities

abstractions that unite disciplines, and can apply these concepts. As SCI transitions to a four-year undergraduate program, individuals filling these openings will have an opportunity to develop curriculum that teaches polymathic concepts beginning from a student's first day in the School.

About our Location

Pittsburgh is a vibrant hub of education, technology and medicine, with many startups and established companies throughout the region. Pittsburgh offers an exceptionally high quality of life, with low cost housing, excellent secondary schools, abundant outdoor activities and rich cultural attractions well beyond other cities of its size. The Wall Street Journal recently ranked the University of Pittsburgh as the top public university in the Northeast, and SCI has numerous connections to other centers, institutions and companies in Pittsburgh, including the University of Pittsburgh School of Medicine, the Center for Causal Discovery, the Pittsburgh Supercomputing Center, the Center for the Neural Basis of Cognition, Google, Uber, Oculus, Carnegie Mellon University and many others. Through these connections, there are ample opportunities to collaborate broadly and build multi-disciplinary research teams of the highest caliber. More information about these entities and the Pittsburgh region are available from the School of Computing and Information's Web site, LRDC's Web site, and the City of Pittsburgh's Web site to bring Amazon's Headquarters to the region.

Application Instructions

Individuals interested in these openings may apply at *http://www.sci.pitt.edu/* recruiting. Those interested in applying must submit:

1. a cover letter indicating the position for which you are applying and a brief explanation of how your interests align to the position
2. a curriculum vitae
3. a research statement describing your current and future research
4. a teaching statement describing your teaching philosophy
5. the names of at least four recommenders

Requirements

For tenure-track positions, a PhD is required.

For non-tenure track positions, an MS is required, and a PhD is strongly preferred.

Application review will begin immediately and applications will be accepted until all positions are filled. For full consideration, please apply by January 12, 2018. The anticipated start date is August 1, 2018.

Questions about the search and/or application status should be emailed to *sci-recruit@pitt.edu.*

Nominations and inquiries for senior openings may be sent in confidence to Bruce Childers, Associate Dean for Strategic Initiatives and Professor.

The University of Pittsburgh is an affirmative action and equal opportunity employer and does not discriminate on the basis of age, color, disability, gender, gender identity, marital status, national or ethnic origin, race, religion, sexual orientation, or veteran status.

University of San Francisco

Computer Science Assistant Professor, Tenure Track (2 positions)

The Department of Computer Science at the University of San Francisco is accepting applications for two tenure-track Assistant Professor positions starting in August 2018. Applicants must have a Ph.D. in Computer Science or a closely-related field. Strong applicants from all CS sub-disciplines will be considered.

Applicants must demonstrate both exceptional teaching ability and a strong potential for independent and collaborative research in computer science. Applicants will be expected to teach both undergraduate and graduate courses, maintain an active research program that involves students, and perform service duties to the CS department and university.

See *https://www.usfjobs.com/postings/13009* for the full job description and application instructions.
To receive full consideration applications must be complete and submitted by January 2, 2018.

University of South Carolina

College of Engineering and Computing – Department of Computer Science and Engineering

Faculty Position in Cybersecurity

The University of South Carolina invites applications for a tenure-track faculty position at open rank in the Department of Computer Science and Engineering

(*http://www.cse.sc.edu*) starting Fall 2018. The department will consider exceptional candidates in any cybersecurity areas, but is particularly interested in candidates whose primary research expertise is in trustworthy embedded systems; secure wireless networks; safety, security, & reliability of cyber-physical systems and Internet of Things.

Applicants should possess a Ph.D. degree in computer science, computer engineering, or a closely-related field, and a demonstrated record of research accomplishments in the area of cybersecurity. Prior teaching experience is preferable, but not required. The successful candidate will be expected to develop internationally-recognized, externally-funded research programs that complement existing strengths in the College and University, and to participate in college-wide, cross-cutting projects. For details on these initiatives, please visit: *http://cec.sc.edu/employment.*

USC is designated by the National Security Agency (NSA) and the Department of Homeland Security (DHS) as a National Center of Academic Excellence in Information Assurance and Cyber Defense Education and Research. Cybersecurity education and research activities are centered in the Department of Computer Science and Engineering in the College of Engineering and Computing. The Department aims to build and expand on its ongoing initiatives to develop a strong, federally-funded cybersecurity research center. Applicants with existing or pending projects funded by NSA, DHS, or other federal agencies are encouraged to apply.

The Department of Computer Science and Engineering offers B.S. degrees in Computer Science, in Computer Information Systems, and in Computer Engineering; M.S. and Ph.D. degrees in Computer Science and in Computer Engineering; M.S. degrees in Software Engineering and in Information Security; and a Graduate Certificate in Cyber Security Studies. The Department has 23 full-time faculty members (11 of whom are NSF CAREER Award recipients), an undergraduate enrollment of 921 students, and a graduate enrollment of 168 students.

Review of applications will begin on November 1, 2017 and continue until positions are filled. Expected start date is August 16, 2018. Interested applicants will

UNIVERSITY OF SOUTH FLORIDA COLLEGE OF ENGINEERING

The University of South Florida invites applications for instructor positions in

Computer Science and Engineering

The University of South Florida is creating the first BS in Cybersecurity program in Florida. This program will be centered in the Department of Computer Science and Engineering in collaboration with multiple other Departments and Colleges in the USF System. We are seeking full-time Instructor positions who can teach a broad range of core and elective courses at the undergraduate and graduate levels as part of this new program. This is an exciting opportunity to be part of the creation of a new program in a high-demand area. Candidates must have past experience in teaching in Computer Science or Information Technology. The University offers a promotion path for instructors. Salary will be commensurate with qualifications and experience. Candidates must have completed a PhD in computer science, computer engineering, information technology, or a related engineering area. Special emphasis is on candidates who can teach in areas related to cybersecurity. Experience in teaching online is desirable. Successful candidates are expected to start in spring 2018 or fall 2018.

The Department of Computer Science and Engineering (http://www.usf.edu/engineering/cse/) has 25 tenure-track/tenured faculty members, ten instructors, five staff members/advisors, and offers B.S., M.S., and Ph.D. degrees, serving more than 800 undergraduate, 120 masters, and 85 PhD students. The department has a strong working relationship with the Florida Center for Cybersecurity. Department ranks include ten NSF CAREER awardees, one National Academy of Inventors (NAI) Fellow, four IEEE Fellows, four IAPR Fellows, three AAAS Fellows, and three AIMBE Fellows. The Computer Engineering graduate program was ranked 48th among US public universities by US News and World Report (2016). USF CSE faculty members have 31 issued patents, own seven copyrights, and have executed eight license/option agreements between FY12-FY16.

The University of South Florida System is a high-impact, global research system dedicated to student success. The USF System includes three institutions: USF; USF St. Petersburg; and USF Sarasota-Manatee. The institutions are separately accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. All institutions have distinct missions and their own detailed strategic plans. Serving over 48,000 students, the USF System has an annual budget of $1.6 billion and an annual economic impact of $4.4 billion. USF is a member of the American Athletic Conference.

With over 230 degree programs at the undergraduate, graduate, specialty and doctoral levels, including the doctor of medicine, there's something for everyone at USF. We believe in creating a talented, engaged and driven workforce through on-going development and career opportunities. We also offer a first class benefit package that includes medical, dental and life insurance plans, retirement plan options, tuition program and generous leave programs and more.

An application package should include a cover letter, curriculum vitae, statement describing teaching experience and goals, and the names and contact information of at least three references. Applicants must electronically submit the application packet to the following website: http://www.usf.edu/administrative-services/human-resources/careers/ (**Applicants search Job Opening ID# 14647**). Applications will be considered starting immediately until the positions are filled.

The University of South Florida is an Equal Opportunity/Equal Access/Affirmative Action Institution. Women and minorities are strongly encouraged to apply. Dual career couples with questions about opportunities are encouraged to contact the Department chair. To request disability accommodations in the application and interview process, please notify Khoa Dinh, the EOL Coordinator at (813) 974-9272.

apply online at http://cec.sc.edu/jobs/CYBER with: (1) a letter of intent, (2) curriculum vitae, (3) a concise description of research plans, (4) a teaching plan, and (5) names & contact information of 3-5 references.

Questions may be directed to:

Department of Computer Science and Engineering
Dr. John Rose, Professor and Faculty Search Committee Chair
rose@cse.sc.edu
(803) 777-2405

The University of South Carolina is an affirmative action, equal opportunity employer, and does not discriminate in educational or employment opportunities or decisions for qualified persons on the basis of race, sex, gender, age, color, religion, national origin, disability, genetics, sexual orientation or veteran status. Minorities and women are encouraged to apply. USC is responsive to the needs of dual career couples.

University of South Carolina

College of Engineering and Computing – Department of Computer Science and Engineering
Multiple Open-Rank, Tenured or Tenure-Track Faculty Positions

The College of Engineering and Computing at the University of South Carolina is in the process of expanding its tenured and tenure-track faculty members. As part of this growth, the Department of Computer Science and Engineering (*http://cse.sc.edu*) seeks dynamic new tenured and tenure-track faculty members (at all ranks) for Fall 2018. Applicants should possess a Ph.D. degree in computer science, computer engineering, or a closely-related field, and a demonstrated record of research accomplishments. The successful candidate will be expected to develop internationally-recognized, externally-funded research programs that complement existing departmental strengths. We also desire candidates whose expertise aligns with vital cross-cutting initiatives identified by the College. For details on these initiatives, please visit: *http://cec.sc.edu/employment.*

The University of South Florida invites applications for faculty positions in

Computer Science and Engineering

Applications are invited for multiple tenure-track positions at all ranks in the Department of Computer Science and Engineering starting Fall 2018. Preference will be given to candidates in strategic research areas that have high funding potential from federal funding agencies including NSF, NIH, DARPA, etc. Research expertise in Artificial Intelligence including Machine Learning, Natural Language Processing, and Computer Vision, Augmented Reality, Big Data, Cloud and Distributed Computing, Neuromorphic Computing, or their intersection with security and privacy of computer systems is desired. Outstanding candidates in other areas may be considered. Truly outstanding senior candidates will be considered. Candidates should have an established record of outstanding-quality research publications and with potential for excellence in teaching. Candidates must have completed, or be near completion of, a Ph.D. in computer science, computer engineering, or a related discipline.

The Department of Computer Science and Engineering (http://www.usf.edu/engineering/cse/) has 25 tenure-track/tenured faculty members, ten instructors, five staff members/advisors, and offers B.S., M.S., and Ph.D. degrees, serving more than 800 undergraduate, 120 masters, and 85 PhD students. The department has a strong working relationship with the Florida Center for Cybersecurity. Currently CSE is leading a collaborative effort to establish a BS in Cybersecurity. Department ranks include ten NSF CAREER awardees, one National Academy of Inventors (NAI) Fellow, four IEEE Fellows, four IAPR Fellows, three AAAS Fellows, and three AIMBE Fellows. The Computer Engineering graduate program was ranked 48th among US public universities by US News and World Report (2016). USF CSE faculty members have 31 issued patents, own seven copyrights, and have executed eight license/option agreements between FY12-FY16.

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In alignment with these initiatives, research themes of particular interest to the Department are those related to Smart & Connected Communities, Transformative Computing, Healthcare Transformations, and Smart & Agile Manufacturing. Areas of special interest include: smart technologies, deep learning, adaptive & resilient cybersecurity, computational science methods, high-performance computing, computer architecture, artificial intelligence, cyber-physical systems, wireless networking, mobile computing, software engineering, and human-computer interaction.

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Questions about the departmental search may be directed to:

Department of Computer Science and Engineering
Dr. John Rose, Professor and Faculty Search Committee Chair
rose@cse.sc.edu
(803) 777-2405

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The University of Texas at San Antonio

Faculty Position in Computer Science

The Department of Computer Science at The University of Texas at San Antonio (UTSA) invites applications for two tenured/tenure-track positions, starting in Fall 2018. The first position is for a tenure-track Assistant or tenured/tenure-track Associate Professor in Game-related areas. The focus is on Computer Graphics, especially 3D animation, 3D modeling, and real-time rendering; and/or Human Computer Interaction, especially human computer interfaces, virtual reality, augmented reality, and game analytics. The second position is for a tenured/tenure-track Associate Professor in Data Science and Artificial Intelligence, focusing on cyber security, Internet of things, bioinformatics, natural language processing, speech recognition, language understanding, computer vision, or machine learning. This position is part of UTSA's focused cluster hiring plan under the *Gold Star Initiative* to recruit top-tier researchers over a four-year period.

See *http://www.cs.utsa.edu/fsearch* for information on the Department and application instructions. Screening of applications will begin immediately. The search will continue until the positions are filled or the search is closed. The University of Texas at San Antonio is an Affirmative Action/Equal Opportunity Employer.

Department of Computer Science
RE: Faculty Search
The University of Texas at San Antonio
One UTSA Circle
San Antonio, TX 78249-0667
Phone: 210-458-4436

University of Virginia

Faculty, Cyber-Physical Systems

The University of Virginia (UVA) seeks applicants for tenured and tenure-track faculty positions in Cyber-Physical Systems (CPS).

To apply, visit *jobs.virginia.edu/applicants/Central?quickFind=83252* and submit a cover letter, CV, statement of research interests, statement of teaching philosophy, and contact information for at least three references.

These positions remain open until filed.

Professional Opportunities

The University of Virginia is an equal opportunity and affirmative action employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply.

University of Virginia

Non-Tenure-Track Teaching (Open Rank)

The Department of Computer Science at the University of Virginia seeks applications for multiple non-tenure-track teaching faculty positions to begin in August 2018. Candidates can apply for these long-term positions at one of three professorial ranks or at one of three lecturer ranks. We seek applicants who share our interest and enthusiasm for excellence in computing science education.

The department is committed to creating and benefiting from an environment where a diversity of capable, inspired individuals interact and collaborate to learn and advance knowledge without barriers.

Candidates for a General Faculty position at the rank of Assistant, Associate or full Professor must have a PhD or equivalent experience in computer science or a related discipline. They must have an interest in and ability to teach a broad set of courses in our undergraduate curriculum. Course load will be two to three sections per semester consisting of a mix of upper- and lower-division courses. Graduate-level teaching will possibly be included. Faculty in professorial positions will have service responsibilities, and scholarship in computing or in CS

education is expected for promotion. The department strongly values scholarship activities by General Faculty that have potential to advance computing education.

Candidates for a General Faculty position at the Lecturer, Senior Lecturer or Distinguished Lecturer rank must have a Master's degree or equivalent experience in computer science or a related discipline. Lecturers will usually teach two to three sections of core undergraduate courses but will also have the opportunity to teach more specialized upper-level courses. Lecturers may have fewer expectations for service activity, and will not be required to be engaged in scholarship.

These positions will have renewable three-year contracts. University policies insure that these positions benefit from opportunities for professional development. General Faculty receive departmental support for their teaching and scholarship activities.

The University of Virginia is annually ranked as one of the premier public institutions in the United States and is located in Charlottesville, a picturesque and vibrant small city perennially ranked as one of the best places to live in the U.S. More information about town, the school, faculty benefits, and other topics can be found at *http://uvacharge.virginia.edu/guide.html*.

To apply, visit *https://jobs.virginia.edu* and search on Posting Number 0621850. Complete a Candidate Profile online, attach a CV, a cover letter stating your interest in the position and your interests and experience in computing education,

a statement of teaching philosophy, and contact information for 3 references.

Review of candidates will begin on November 15, 2017 and will continue until positions are filled.

For additional information about the positions or the application process, please contact Tom Horton via email at *horton@cs.virginia.edu* or by phone at 434 982-2217.

With one of the highest graduation rates of minority undergraduate students and one of the highest percentages of women engineering students among public universities, the University of Virginia is fundamentally committed to increasing the diversity of its faculty and staff. UVA is an affirmative action and equal opportunity employer. We welcome nominations of and applications from women, members of minority groups, veterans and individuals with disabilities. We also welcome others who would bring additional dimensions of diversity to the university's research and teaching mission. We believe diversity is excellence expressing itself through every person's perspectives and lived experiences.

Wellesley College

Lecturer, Computer Science

Wellesley College invites applications for a two-year Lecturer position in Computer Science, starting in July 2018. We seek candidates who are committed to excellence in teaching, spanning introductory through advanced CS courses and including curriculum development. We

are especially interested in candidates whose teaching, scholarship, or service has prepared them to contribute to our commitment to diversity, inclusion, and equity within an academic setting. Lecturers teach two courses per semester, engage in mentoring students and department service, and have the opportunity and support to pursue scholarly work. Preference will be given to candidates with a PhD in Computer Science or a related discipline, ABD considered. Strong candidates in any area of specialty will be considered. Information about the department can be found at *http://www.wellesley.edu/cs.*

Applicants should submit a cover letter, curriculum vitae, and statement of teaching experience and interests at *https://career.wellesley.edu.* The names/email addresses of three references are requested. (The online application will request names/email addresses so that recommenders or dossier services may submit the letters directly.) Applications will be reviewed starting on February 1, 2018. If there are difficulties submitting online, please contact *working@wellesley.edu* for assistance. Questions about the position should be directed to Brian Tjaden at *btjaden@wellesley.edu*