# $\underset{\text { RESEARCH }}{\text { COMPUTING }}$ NS 

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

OCTOBER 2017 Vol. 29 / No. 8

## CRN At-A-Glance

## Nominees Sought for CRA Board of Directors

The Computing Research Association seeks your help in suggesting nominations for its board of directors. We want individuals who have the time, energy and initiative to work on CRA issues on behalf of the entire CRA community. We have a working board, and all members are expected to be involved with community issues.

See page 3 for full article.

## CRA Education Committee Announcements

[^0]
## In This Issue

Announcements
Nominees Sought for CRA Board of Directors
Applications Open for 2018 CRA-W Grad Cohort for Women

New CRA-E Resource - Teaching Computer Science: Capacity Building and Scaling

CRA-E Committee Presents Updated Conquer Website

Nominations Open for 2018 CRA-E Undergraduate Research Faculty Mentoring Award

CRA-E Graduate Fellows Program Accepting Nominations

Computing Researchers Travel to D.C. to Make the Case for Computing

Computing Research: Addressing National Priorities and Societal Needs 2017

Pacemaker Recall Exposes National Need for Research and Education in Embedded Security

Which Students are Attending Technical Conferences in Computing?

Why Social Science? Because it Makes Computing Work for People

2018 IBM Two-Year Worldwide PhD Fellowship
Board Members
Staff
Column Editor
Professional Opportunities

## Announcements

CRA Summit on<br>Technology and Jobs

On December 12, CRA will host a Summit on Technology and Jobs in Washington, DC. The goal of the summit is to put the issue of technology and jobs on the national agenda in an informed and deliberate manner. It will bring together leading technologists, economists, and policy experts who will offer their views on where technology is headed and what its impact may be, and on policy issues raised by these projections and possible policy responses.

## Are You Working on the Taulbee Survey?

The CRA Taulbee Survey is in progress. The deadline for the salary section is November 20 and the deadline for the rest of the survey is January 8, 2018.

If you are the academic unit head of a U.S. or Canadian department granting doctoral degrees in Computer Science, Computer Engineering, and/or Information, you should have received emails about the survey. If you did not, please check with the CRA Director of Statistics, Dr. Betsy Bizot, at bizot@cra.org.

## Applications Open for CRA's New URMD Grad Cohort Workshop

Applications are now open until October 15 for the inaugural CRA URMD Graduate Cohort Workshop, which will be held March 16-17, 2018 in San Diego, CA. This new iteration of the Graduate Cohort Workshop is designed specifically for underrepresented minorities in computing and persons with disabilities.

## Nominations Open for 2018 CRA Award for Outstanding Undergraduate Researchers

This award recognizes undergraduate students in North American colleges and universities who show outstanding research potential in an area of computing research. It is a wonderful way to recognize your best student researchers and your department. The deadline for nominations is October 27.

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

CRA invites nominations for the 2018 CRA Distinguished Service Award and A. Nico Habermann Award. The CRA Distinguished Service Award is presented to a person who has made an outstanding service contribution to the computing research community. The CRA A. Nico Habermann Award recognizes a person who has made outstanding contributions aimed at increasing the numbers and/or successes of underrepresented groups in the computing research community. The deadline for receipt of nominations for both awards is December 8.

## Save the Date: 2018 CRA Career Mentoring Workshop

CRA's biennial Career Mentoring Workshop will be offered on February 26-27, 2018 at The Westin Arlington Gateway in Arlington, Va. The workshop provides career advice and mentoring activities for junior assistant professors in computer science and engineering. In the next several months, we will be announcing the full agenda and registration information. Click here to subscribe to updates on the CRA Career Mentoring Workshop.

## Nominees Sought for CRA Board of Directors

The Computing Research Association seeks your help in suggesting nominations for its board of directors. We want individuals who have the time, energy and initiative to work on CRA issues on behalf of the entire CRA community. We have a working board, and all members are expected to be involved with community issues.

The board provides much of the membership for various standing committees, including the Government Affairs, Snowbird Conference, Taulbee Survey, Finance, and Elections committees. In addition, issues affecting computing research arise unexpectedly, and board members must take the initiative and lead CRA's responses. Many CRA committees and initiatives involve year-round attention, regular conference calls, communications with lab directors and department chairs, proposal writing, and sometimes travel.

The board, as a whole, meets twice a year, with travel and hotel costs paid by the individual members. Board members serve staggered three-year terms. At the discretion of the Elections Committee and based upon a member's proactive service record during the expiring term, members wishing to stand for re-election may be included on the draft ballot. There is a three term limit. Candidates do not need to be affiliated with CRA member organizations. We allow self-nominations from candidates.

Recent board activities include:

- Working with the computing research community to envision the future of computing research
- Increasing the participation of women and minorities in computing research
- Thinking strategically about computing education and its impact on the research enterprise
- Testifying before Congress and meeting with policymakers to explain the role of computing and computing research
- Developing workshops on critical policy issues
- Planning the biennial CRA Conference at Snowbird
- Conducting the annual CRA Taulbee Survey
- Monitoring CRA's budget and expenses


## Important Dates and Events:

- The deadline for receipt of nominations is December 1, 2017. The Elections Committee will carefully consider all nominations. Important criteria considered by the committee will include broad diversity, distribution of candidates and current board members among member institutions, distribution among types and sizes of institutions, evidence of leadership, and evidence of interest in and capacity for service beyond that expected of all faculty members and researchers.
- On January l2, 2018, the Elections Committee will announce the draft ballot. Additional names may be added by the CRA community (as described below).
- On February 2, 2018, nominations by petition are due. Each such nomination must be signed by the heads of at least five constituent member organizations that are current in dues payment. Current CRA members are listed at http://cra.org/about/membership/ member-list/.
- On February 9, 2018, final ballots will be distributed to all CRA department chairs and lab directors. Each will have one vote for each open slot on the board.
- On February 23, 2018, completed ballots must be returned to CRA.
- In early March, the election results will be announced.

Click here to fill out the nomination form. Additional information on CRA and its activities is available at http://cra.org/about/. Questions can be sent to elections@cra.org.

## Applications Open for 2018 CRA-W Grad Cohort for Women

CRA-W
Computing Research Association Women

The upcoming CRA-Women Graduate Student Cohort for Women will be held April 13-14, 2018 in San Francisco, CA. CRA-W Grad Cohort for Women is a two-day workshop for female students in their first, second, or third year of graduate school in computing fields. The application is available here and closes November 30.

The workshop is generously funded by sponsors from industry, academia, the National Science Foundation, and the computing community. The workshop aims to increase the ranks of senior women in computing-related studies and research by building and mentoring nationwide communities of women through their graduate studies.


## New CRA-E Resource - Teaching Computer Science: Capacity Building and Scaling

Computing Research Association
Education

The CRA-Education Committee has added a new resource, "Teaching Computer Science: Capacity Building and Scaling," to its website. Universities and colleges across the United States and Canada are facing significant increases in undergraduate computer science (CS) enrollments. This surge has exceeded all previous CS program booms, and there is a general sense that the current enrollment growth is substantially different than that of the mid-1980s and late 1990s. CRA's Generation CS Study sheds a light on the growing enrollment trends and their impact on computer science units, diversity, enrollment management strategies, and more.

Although different institutions, large and small, are experiencing the enrollment increases in different ways, many programs are already operating at or beyond their maximum capacity. To help departments and faculty deal with this capacity crunch,
this scaling capacity resource is intended to provide a platform for sharing technological and pedagogical interventions for addressing capacity challenges. These practices are not designed to be "one size fits all," but rather offer a variety of solutions derived from specific university needs.

This intervention list includes recipients of Google's CS Capacity Awards and other self-nominated programs.

If you would like to nominate a CS Capacity Growth Approach, please fill out this form. Submissions will be evaluated and selected based on their potential for broad impact and interest. Due to additional constraints, CRA-E cannot guarantee that all submissions will behighlighted on this site.

CRA would like to recognize Google as a sponsor of the production of this new resource.


## CRA-E Committee Presents Updated Conquer Website

The Computing Research Association's Education Committee (CRA-E) is excited to announce a new and improved version of its Conquer website (conquer.cra.org) for CS undergraduates interested in research and graduate school. The site also has resources for faculty who are interested in mentoring undergraduate research and helping their students apply to graduate school.


# Nominations Open for 2018 CRA-E Undergraduate Research Faculty Mentoring Award 

CRA-E
Computing Research Association
Education

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

Eligible nominees are full-time faculty members at North American academic institutions. Faculty members include tenured and tenure-track faculty, instructors, and professors of the practice. Current members of CRA-E are not eligible to be a nominee or to serve as a nominator. A nominee must be nominated by a faculty member or researcher in the computing field. Nominations are due Monday, November 27, 2017 by 5 PM (ET). Winners will be notified by early February 2018. Click here to view the 2017 award winners and here to view the FAQs.

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

## Evaluation criteria

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

The 2018 selection committee includes:
Barbara Ryder, Virginia Tech, Chair
Chandra Krintz, UC Santa Barbara

Pat Morreale, Kean University
Denys Poshyvanyk, William \& Mary
Neil Spring, University of Maryland

Recipients of the 2017 (top row) and 2016 (bottom row) CRA-E Undergraduate Research Faculty Mentoring Awards.


## CRA-E Graduate Fellows Program Accepting Nominations

The Computing Research Association Education Committee (CRA-E) is now accepting applications for the CRA-E Graduate Fellows Program. The program provides opportunities for Ph.D. candidates in computing fields to contribute to CRA-E projects, network with computer science education advocates on the committee, engage in advocacy for mentoring undergraduate students, and promote undergraduate research and education at the national level.

CRA-E plans to appoint up to two graduate fellows per year, who will serve as members of the committee, providing a voice for graduate students. The fellows will attend the annual CRA-E meeting (with travel expenses funded by CRA-E), serve on a CRA-E subcommittee related to their interests and expertise, and contribute to the CRA-E Conquer site that provides resources for undergraduate research and applying to graduate school.

CRA-E's two graduate Fellows for 2017 are Booma Sowkarthiga Balasubramani, a Ph.D. student in computer science at the University of Illinois at Chicago and Keith Feldman, a Ph.D. student focusing on high performance computing at Notre Dame University.

Faculty members are invited to nominate a graduate student by January 29, 2018. More information for students and nominators is available at http://cra.org/crae/activities/fellows/.

Please nominate a graduate student and encourage your colleagues to also participate!


# Computing Researchers Travel to D.C. to Make the Case for Computing 

CRA

By Brian Mosley, CRA Policy Analyst

On September 13,14 computing researchers from across the country visited Washington, D.C. to make the case for federally funded computing research. In all, they participated in nearly 40 House and Senate meetings. Their message to Congress was very simple: Federally supported computing research is vital to the nation's future. Using their own research and individual stories as support, and helped with additional information from CRA, they made the "federal case" for computing to Members of Congress and their staff. Those Members of Congress now know more about the expertise and interesting (and important) computing work that occurs in their districts and states, and our participants have a sense of just who represents them in Congress. And, hopefully, they have started a lasting dialogue on both sides.

If you would like to participate in a future Congressional Visit Day, or are in Washington, D.C. and would like to visit your representative's office, please contact Brian Mosley (bmosley@cra.org) in the CRA Government Affairs Office. CRA can provide expert training, messaging, and materials, and we would also be happy to accompany you to your congressional meetings.


# Computer Hardware's Ongoing Metamorphosis, as reported in the New York Times 

By CCC Vice Chair Mark Hill, University of Wisconsin-Madison and former CCC Chair Greg Hager, Johns Hopkins University

The following is a guest blog post from CCC Vice Chair and Post Moore's Law Computing Task Force Chair Mark Hill from University of Wisconsin-Madison and former CCC Chair and Artificial Intelligence Task Force Chair Greg Hager from Johns Hopkins University.


In a recent article, "Chips off the Old Block: Computers Are Taking Cues From Human Brains," the New York Times highlighted the latest new wave of innovation in computer hardware, the foundation of Information Technology that has so altered our world. Like many generations of innovation before it, these innovations are being driven by the insatiable need for additional computing capacity, in this case due to the new demands of the latest generation of machine learning (ML) innovations.

However, this change also comes at a time when there is a broader fundamental shift in the growth of computing capacity. As background, mid-20th century computer hardware has repeatedly doubled in performance every two years or so through the synergistic interaction of technology improvements (Moore's Law) and architectural innovations in how to effectively use the ballooning transistor budget. Until early in the 21st century these improvements were transparent
to software developers except that applications ran much faster, enabling far richer applications. The latest advances have increasingly relied on the use of multicore chips and specialized hardware such as graphics processing units (GPUs). From the applications perspective, the improvements of the last decade have required changes in the software stack that are substantial, but still relatively evolutionary.

The New York Times article highlights the fact that the current revolution is demanding more radical changes to the boundary between software and hardware, especially for machine learning. As past experience with in other areas, such as high performance computing, have shown, it is not always easy to take advantage of new high performance hardware while supporting familiar, easy-to-use high-level languages and interfaces. Fortunately, the latest changes are still largely transparent to ML experts

Computing Research: Addressing National Priorities and Societal Needs 2017

October 23-24, 2017
The InterContinental Washington D.C. at the Wharf

Over the past 11 years, the Computing Community Consortium has hosted dozens of research visioning workshops to imagine, discuss, and debate the future of computing and its role in addressing societal needs. The second CCC Computing Research symposium draws these topics into a program designed to illuminate current and future trends in computing and the potential for computing to address national challenges.

Please see the agenda and symposium website for more information. The event will be livestreamed here starting at 8:30AM EDT on Monday, October 23rd. Make sure to tune in then! You can also join the twitter conversation using \#CCCSymposium!


# Pacemaker Recall Exposes National Need for Research and Education in Embedded Security 



Kevin Fu and Denis Foo Kune test pacemaker security with a synthetic cadaver as part of the NSF THAW.org project.

> "From pacemakers to autonomous vehicles, national computing research and education initiatives for embedded security will lay a crucial foundation for the Internet of Everything era," says Fu.

Last month, the Food and Drug Administration (FDA) issued the first major recall of a medical device because of a cybersecurity risk. Nearly half a million pacemakers were recalled for a software update that clinicians will apply during a patient's in-clinic visit. Our team has spent a decade analyzing security problems and solutions in pacemakers and other medical devices. While software recalls by FDA are not new, the recall highlights the need to build security into the Internet of Everything that is powered by embedded computing systems. Pacemakers represent the canary in the coal mine-warning of the pressing challenges for embedded security research and education.

I interviewed Computing Community Consortium (CCC) Council members and distinguished researchers on how the nation can lead embedded security research and education rather than follow and be surprised by the next medical device or automobile cybersecurity recall.
"It used to be that just computers were computers. Today, almost everything is
a computer-your phone, your TV, your car, your child's toys, your home, your refrigerator, and your medical device," explains CCC Council member Dr. Nadya Bliss, Director of the Global Security Initiative at the Arizona State University. "While the Internet of Things brings exciting advances to various aspects of our lives ranging from healthcare to transportation, defense, finance, manufacturing, and critical infrastructure, they also create vulnerabilities in critical infrastructure at an unprecedented scale," warns Dr. Farinaz Koushanfar of Electrical and Computer Engineering at UC San Diego. Dr. Sam H. Fuller, CTO Emeritus of Analog Devices and member of the National Academy of Engineering points out, "As devices and systems are increasingly interconnected, security has become a critical property of their embedded hardware and software."

In addition to these challenges, there is a large gap in the research and education needed to build security into embedded systems ranging from medical devices and autonomous vehicles to the Internet of Things.

My colleagues from Dartmouth College, Illinois, Johns Hopkins, Michigan, and Vanderbilt investigated how to move beyond hacking medical devices to discovering constructive approaches that improve embedded security for healthcare as part of the Trustworthy Health and Wellness Frontiers Project sponsored by the National Science Foundation (NSF). A number of research groups, companies, and federal agencies now serve this marketplace of ideas, products, and services. While the world calls leaders and organizations in the U.S. for advice on medical device security, our country struggles to be on speed dial for world leadership in embedded security.

Because of early investments in embedded security by industry and government, Europe and Asia are home to the top embedded security university labs in the world such as COSIC in Belgium, the EMSEC Lab in Germany, the TAMPER Lab in the U.K., and the USS Lab in China. Embedded security faculty have departed the U.S. for these brighter research opportunities overseas. The U.S. government
even outsourced the manufacture of electronic passports to a European-based embedded security company. While an economic boon for some countries, this outsourcing trend will likely worsen as U.S. households and businesses embrace IoT technology, and seek products and security solutions from vendors overseas.
"If the U.S. hopes to be competitive in any technology area, it cannot cede embedded security research and education," says Michael Westra who leads connected and in-vehicle embedded security at Ford Motor Company.

What needs to be done for the U.S. to catch up?

Dr. Srini Devadas from the Massachusetts Institute of Technology advises, "We need a coordinated, nation-wide effort in embedded security research and education to address these challenges."

Academic partnerships with industry are key to improving embedded security. "Industry needs to develop the equivalent of a building code for embedded systems to withstand attacks already at our doorstep. Embedded software must be up to code," cautions Dr. Carl Landwehr who previously developed and managed major cybersecurity programs at NSF and IARPA.

Dr. Greg Morrisett, Dean of Computing and Information Sciences at Cornell University, reminds us to respect safety, "Wherever computation can have a direct effect on human safety (embedded or otherwise), and especially where that computation is connected to the broader Internet (which is the common case now), we desperately need new research ideas and new practical methodologies for gaining assurance."

Safety is not the only casualty from lack of embedded security. "For embedded systems, hacking can also result in loss of data that could be used to hurt the individual or their property," according to Dr. Keith Marzullo, Dean of the University of Maryland College of Information Studies. "Not only do we need to educate designers, developers, and operators, we also need to educate legislators, lawyers, and policy makers on the current limitations and the possible ways forward."

In the U.K., Dr. Ross Anderson is Professor of Security Engineering at Cambridge University and is known for analyzing embedded security as well as the vulnerabilities in bank cards and ATMs. Anderson poses an unsettling question, "What does it mean for a thermometer to be secure, or an air-conditioner?" It's not realistic to ask an ordinary citizen to worry about cybersecurity of their domestic appliances, their cars or their medical devices. Embedded security must be built in.

But there's a skill and workforce gap. While the number of students who can write apps has exploded, there aren't enough university programs that supply students with the skills necessary to protect pacemakers and other embedded devices. This unmet need for education led Dr. Sujeet Shenoi to create interdisciplinary embedded security programs at the University of Tulsa. "The work is super technical. It needs strong hardware, software, and domain engineering expertise. This takes years of learning and doing. My customers have an insatiable need for Ph.D.s in embedded security," explains Shenoi.

Will another medical device or automobile or airplane security hack emerge? Almost certainly. The cost will be borne on everyday citizens, but there is a small window of opportunity to fix these problems before the security vulnerabilities are permanently baked into millions of devices that will persist for decades in our homes, cars, and bodies.

It will take forethought and leadership to make strategic national investments in embedded security research and education so that people can trust in their cars, pacemakers, and the coming tsunami of IoT products.

Computer Hardware continued from page 10
as they are in fact designed to support some of the high-level interfaces, such as Google's TensorFlow, that are in wide use already. Systems highlighted by the article include Microsoft's use of field-programmable gate arrays (FPGAs), Google's tensor processing unit (TPU) to support TensorFlow, and Nvidia's advances in GPUs.
For those interested, the CCC has sponsored several workshops and white papers related to these ideas dating back to 2012 including the 21st Century Computer Architecture white paper and several more-recent whitepapers from nanotechnology through architecture to cross-cutting and onto machine learning and brain connections.

At least the next decade of computer hardware metamorphosis promises to be exciting!

## Which Students are Attending Technical Conferences in Computing?

CERP
Computing Research Association Evaluation

## By Heather Wright, CERP Research Associate



Using Data Buddies data, CERP measured student participation in technical computing conferences as a function of their academic year. Analyses revealed that first year and second year students were proportionally less likely to attend a technical conference in computing compared to their upper-division peers, $p<0.05$. This finding is not surprising, as first and second year students are early in their major coursework and may not yet have engaged in research activities. However, these reasons should not be deterrents to faculty deciding which students to take to conferences. In a recent ACM Inroads article, Janet Davis of Whitman College and Christine Alvarado of the University of California San Diego argue that undergraduate students can gain exposure to real-world contexts, research innovations, and opportunities to broaden their professional network in the field of computing through attending conferences. This suggests conference participation may increase student engagement in computing research, which in turn may help retain these students in computing, particularly among first and second year students. It will be important for faculty members to mentor lower-division students preparing for their first conference so that these students feel comfortable interacting with their peers and the broader community, and get the most out of attending these conferences.


#### Abstract

Notes: During the 2016 semester. CERP surveyed 11,753 undergraduate students from a sample of computing departments across the United States. Of those, CERP generated a sample of students who were not transfer students, $n=9,674$, to create an accurate reference of students' academic year. The final sample included $27 \%$ first year students, $23 \%$ second year students, $23 \%$ third year students, $20 \%$ fourth year students, and $7 \%$ fifth year (or longer) students. Students were asked the following question with 'Yes' or 'No' response categories: During the past year, were you involved in any of the following groups or activities: Technical conferences related to computing. A chi-square test of independence was calculated comparing technical conference attendance of students by academic year. A significant effect of academic year, $x^{2}(4)=80.86, p<.01$, revealed a different rate of conference attendance among the five academic years. To test individual differences between the groups, proportion z-tests were calculated and significance was determined using the conventional $p \leq .05$ level. First year students were less likely to have attended a technical conference related to computing than second, third, fourth, and fifth year students, $p \leq .05$. Similarly, second year students were less likely to have attended a technical conference compared to third, fourth, and fifth year students, $p \leq .05$.


## Why Social Science? Because It Makes Computing Work for People



## About the Author:

Andrew Bernat was a founding member and chair of the Computer Science Department at the University of Texas at El Paso (spending 20 years there), NSF Program Director and now the Executive Director of the CRA. He has some 70 refereed publications, roughly equally in disciplinary research and in computing education, a large number of presentations and in excess of \$25 million in externally funded activities. In recognition of "... his success in creating arguably the strongest computer science department at a minority-serving institution ...", the Computing Research Association honored him with the 1997 A. Nico Habermann Award. Outside interests include steam locomotives, narrow gauge railroads, SCUBA and his wonderful grandchildren.

## By Andrew Bernat, Ph.D., Executive Director, CRA

## This article was originally published in the blog series "Why Social Science?", a project of the Consortium of Social Science Associations.

Two years ago, the leadership of the House Science, Space and Technology Committee looked to our organization, the Computing Research Association, to endorse an approach to reauthorize funding at a number of key Federal science agencies. The proposed legislation would provide increases for computing research funding at the National Science Foundation while keeping the overall agency budget essentially flat by bolstering computing - along with mathematics, physics, biology, and engineering - at the expense of the social, behavioral, and economic sciences (and the geosciences). The committee Chair hoped that CRA, which represents nearly 200 academic computing departments and industrial research labs - including computing research labs at IBM, Google, Facebook, and Microsoft - would support the approach, given the direct and indirect benefits increased investment in computing research at NSF would have to our member institutions.

The science advocacy community in Washington, DC, is comprised of many organizations like CRA, each representing some typically discipline-specific slice of the academic and research community, but bound by the shared goal of ensuring that policymakers understand the importance of the Federal investment in research and the value of peer and merit review in setting priorities. As such, we are typically averse to efforts that pit the disciplines against
each other, like the one proposed. But that wasn't the only important reason for us to oppose the proposal. What primarily motivated our opposition was our strong belief that cutting social, behavioral, and economic science investments would also do great damage to computing research.

In our original response to the committee, we noted several key areas of computing research - including cyber-security and human-computer interaction (HCI) - that were significantly informed by work emanating from the Social, Behavioral and Economic Sciences (SBE) directorate at NSF. We argued that the insight into human behaviors provided by SBE-funded work is critical to understanding how best to design and implement hardware and software systems that are more secure and easier to use. In cyber-security work, where the human is often the weakest link in the chain, it is especially crucial to understand the varying motivations and usage patterns that dictate how people interact with their machines, and the expertise in studying those issues in large part resides in the social, behavioral and economic sciences. In HCl work, expertise in social, behavioral and economic sciences is critically valuable in creating workplace systems that foster collaboration and creativity, creating disaster response systems that influence people to effectively find shelter and assistance and creating systems that motivate medical adherence and compliance with medical treatment.

## Why Social Science (continued)

In the two years since this legislation was proposed, our members have highlighted further connections to social science research and their own work, including:

- Social network principles rooted in sociology that have helped inform link and content recommendation systems on social media platforms like Facebook and Twitter.
- Auction principles rooted in economics that have been crucial to the creation of online markets, including the market for Internet advertising.
- Psychology that helps us understand the low-level perceptual effects that guide the design of the resolution and dynamic range of displays, or high-level effects that guide interface design, and understandings that guide computer vision research.
- Behavioral and economic sciences that guide the design of "anticipatory analytics" tools for decision making, which must address salience, credibility, and legitimacy to be effective.
- Quantitative techniques like risk theory, utility theory, and decision theory that are being applied to software development problems, or game theory to model the interactions between hackers and those attempting to defend a system.

Social science is also instrumental to computing not just to help answer the question of "what can we do?", but also "what should we do?" As algorithms and autonomous agents become increasingly part of daily life, the issue of algorithm bias, for example, requires much input from both social sciences and humanities. And as the world becomes ever more awash in digital data and as our technology becomes ever more adept at wading through it, social scientists are helping us understand the implications for privacy and offering ways to preserve it.

As Holly Rushmeier, a computer scientist at Yale, put it - perhaps most succinctly - "since the whole purpose of computing is to accomplish things for people, the social sciences are critical to everything we do."

That's a message we will continue to carry to policymakers in Congress and the Administration.

# 2018 IBM Two-Year Worldwide PhD Fellowship 

## IBM is pleased to announce the 2018 IBM Two-Year Worldwide PhD Fellowship for the academic years of 2018-2019 and 2019-2020.

Strong collaboration with faculty, students and universities is vital to IBM. The PhD Fellowship Program advances this collaboration by recognizing and supporting exceptional PhD students who want to make their mark in promising and disruptive technologies. In 2018, the Fellowship Program is focusing on: AI, blockchain, security, and quantum computing. IBM is well positioned to advance these technologies and exploit their ability to transform industries and societies.

Since the creation of the IBM PhD Fellowship Program in 1951, we have supported thousands of PhD Fellowship students - with more than 700 students supported over the past 10 years alone.

We have made important changes to the program. The 2018 IBM PhD Fellowship includes:

In the US, fellowship recipients while in school will receive a stipend for living expenses, travel and to attend conferences (\$35,000 for 2018-2019 and \$35,000 for 2019-2020). US fellowship recipients will also receive \$25,000 toward their education in 2018-2019.

Outside the US, fellowship recipients while in school will receive a competitive stipend for living expenses, travel and to attend conferences for the two academic years 2018-2019 and 2019-2020. Fellowship stipends vary by country.

Students must be approximately two years from receiving their PhD degree.
All IBM PhD Fellows are matched with an IBM Mentor according to their technical interests, and are encouraged to participate in an internship at least once while completing their studies. Students receiving a comparable fellowship from another company or institution during the same academic period are not eligible for an IBM PhD Fellowship. Students in Europe and Russia may accept government scholarships and remain eligible for the IBM PhD Fellowship.

We have received many outstanding and exceptional candidates from universities all over the world in the past and encourage universities to submit nominations September 21 - October 26, 2017.

For more details go to www.ibm.com/university/phdfellowship.
The IBM PhD Fellowship program also supports our long-standing commitment to workforce diversity and encourages nominations of women, minorities and all who contribute to that diversity. We look forward to receiving your department's nominations.

Please spread the word. For further information, see your IBM contact, visit the website above, or contact phdfellow@us.ibm.com.

Thank you,

## IBM Global University Programs

## CRA Board of Directors

Sarita Adve, University of Illinois at Urbana-Champaign
Nancy Amato, Texas A\&M University
Ronald Brachman, Cornell Tech
Carla Brodley, Northeastern University
Tom Conte, Georgia Tech
Susan Davidson, University of Pennsylvania
Eric de Sturler, Virginia Tech
David Ebert, Purdue University
Joel Emer, NVIDIA/MIT
Stephanie Forrest, Arizona State University
Michael Franklin, University of Chicago
Lise Getoor, UC Santa Cruz
Dan Grossman, University of Washington
Gregory Hager, Johns Hopkins University
Brent Hailpern, IBM Research - Almaden
Mary Hall, University of Utah
Susanne Hambrusch, Purdue University
Kim Hazelwood, Facebook
H.V. Jagadish, University of Michigan

Farnam Jahanian, Carnegie Mellon University
Chris Johnson, University of Utah
Kathryn McKinley, Google
Greg Morrisett, Cornell University
Elizabeth Mynatt, Georgia Tech
Mario Nascimento, University of Alberta
Brian Noble, University of Michigan
Penny Rheingans, University of Maryland Baltimore County
Barbara Ryder, Virginia Tech
Vivek Sarkar, Georgia Tech
Andrew Sears, Penn State University
Shashi Shekhar, University of Minnesota
Jaime Teevan, Microsoft/University of Washington
Josep Torrellas, University of Illinois at Urbana-Champaign
Min Wang, Visa Research
Ellen Zegura, Georgia Tech

## CRA Board Officers

Susan Davidson, Chair, University of Pennsylvania
Susanne Hambrusch, Vice Chair, Purdue University
Ronald Brachman, Treasurer, Cornell Tech
Greg Morrisett, Secretary, Cornell University

## CRA Staff

Andrew Bernat, Executive Director
Betsy Bizot, Director of Statistics and Evaluation
Claire Brady, Program Manager
Sandra Corbett, Program Associate
Khari Douglas, Program Associate, Computing
Community Consortium
Ann Drobnis, Director, Computing Community Consortium
Jill Hallden, Accounts Payable Specialist
Peter Harsha, Director of Government Affairs
Sabrina Jacob, Administrator
Ayla Mangold, CRA Program Assistant
Brian Mosley, Policy Analyst
Erik Russell, Director of Programs
Shar Steed, Communications Specialist
Jane Stout, Director, Center for Evaluating the
Research Pipeline
Burçin Tamer, Research Scientist, Center for
Evaluating the Research Pipeline
Heather Wright, Research Associate, Center for Evaluating the
Research Pipeline
Helen Wright, Senior Program Associate, Computing
Community Consortium

## Column Editor

Expanding the Pipeline
Patty Lopez, Intel

## Professional Opportunities

## American University

Assistant or Associate Professor Position Department of Computer Science

The Department of Computer Science in the College of Arts and Science at American University invites applications for three full-time, tenure-track positions beginning August 1, 2018. Two of these positions are at the rank of Assistant Professor while the third one is an open-rank position. Applicants should have a PhD or an anticipated PhD completion by August 2018 in the field of Computer Science.

We are looking for candidates who are effective teachers, are strongly committed to excellence in scholarly research, and are excited at the prospect of joining a department in the making where they will be able to make their mark and join a friendly, collegiate and highly accomplished team. We welcome applications from candidates engaged in high-quality scholarship in the area of Computer Science, including Artificial Intelligence (with emphases on Data Mining and Natural Language Processing), Game Development (with emphases on Game Technology and Artificial Intelligence in Games) and Computer Systems (with emphases on Database Management Systems, Networking and Computer Security, Software Engineering and UI/UX). Strong candidates in other research areas, especially with domains of applications compatible with those active at American University, will also be considered as we strongly welcome researchers who ignore traditional
disciplinary boundaries. In addition to scholarship and teaching, responsibilities will include participation in department, school and university activities.

Salary and benefits are competitive. Review of applications will begin by November 15. Please submit applications via: http://apply.interfolio.com/43649. Include a letter of application, curriculum vitae, three letters of recommendation, recent teaching evaluations (when possible), and copies of recent published papers or working papers. Please contact Professor Nathalie Japkowicz at japkowic@american.edu if you have any questions.

American University is a private institution within easy reach of the many centers of government, business, research, and the arts located within the nation's capital. For more information about American University, visit www.american.edu.

The Department of Computer Science is a small but exciting department with a growing student population and strong research achievements. American University has specifically identified Computer Science as one of its targets for growth, with the goal of making it a premium research and teaching unit within the university. Along with the Department of Mathematics and Statistics, the Department of Physics, the Game Lab, the Collaborative for Applied Perceptual Research and Innovation (CAPRI), and the Entrepreneurship and Innovation Incubator, the Department of Computer Science has moved into
the brand new Don Myers Technology \& Innovation Building. Computer Science currently offers an undergraduate program, but is in the process of finalizing its Master's program, which will be offered as a 5 -year $\mathrm{BS} / \mathrm{MS}$ program or a 2-year MS program beginning in Academic Year 2018-2019. A proposal for a combined Ph.D. program with the Mathematics and Statistics Department as well as the Game Lab is also in the works. Learn more about the College of Arts and Sciences at http://www.american.edu/cas/ and about the department at http://www. american.edu/cas/cs/.

American University is an equal opportunity, affirmative action institution that operates in compliance with applicable laws and regulations. The university does not discriminate on the basis of race, color, national origin, religion, sex (including pregnancy), age, sexual orientation, disability, marital status, personal appearance, gender identity and expression, family responsibilities, political affiliation, source of income, veteran status, an individual's genetic information or any other bases under federal or local laws (collectively "Protected Bases") in its programs and activities. American University is a tobacco and smoke free campus.

## Professional Opportunities

The Australian National University<br>Computer Science (CS) Futures Fellow

Job no: 517243
Classification: ANU Academic Level B/C Salary package: \$94,287-\$127,025 per annum plus $17 \%$ superannuation Terms: Full time, Fixed term 5 years

## Position Overview

The Research School of Computer Science (RSCS or the School) is one of two Research Schools within the ANU College of Engineering and Computer Science (CECS). The College is seeking applications from enthusiastic early career academics who have the potential and deep commitment to help define the future of the computing discipline. You will have the opportunity to present a ground-breaking vision for your research and its importance to the future of computer science. Applications are particularly invited from researchers whose interests are synergistic with existing research groups within the Research School and whose breadth of vision reaches across traditional discipline silos. We welcome and develop diversity of backgrounds, experiences and ideas and encourage applications from individuals who may have had non-traditional career paths, who may have taken a career break or who have achieved excellence in careers outside of academia.

The positions are initially for a period of 5 years. Longer term and/or tenuretrack appointments may be offered in exceptional cases subject to experience,
skill and performance with consideration given to the candidate's achievement relative to opportunity. Successful candidates will be offered individualised attention and be part of a culture with a strong sense of community to define their own research agendas, apply for competitive funding, develop their own laboratory facilities and where appropriate, building a research team. These positions come with a yearly budget to cover visitors and conference travel as well as the possibility to negotiate significant start-ups funds.

This recruitment process is part of the wider ANU College of Engineering and Computer Science initiative, where we are looking to make up to 10 appointments of this type across Engineering and Computer Science over the next two (2) years. For information on the Future Engineers Research Leadership process running in the Research School of Engineering please visit: http://jobs.anu.edu.au/cw/en/ job/5I7241/future-engineering-research-leadership-fellow-ferl

For CS Futures enquiries please contact Professor Alistair Rendell. T: +61-2-6125 4386, E: Alistair.Rendell@anu.edu.au

For further information and to apply: http://jobs.anu.edu.au/cw/en/job/5I7243/ computer-science-cs-futures-fellow

Applications close: 5 November 2017, 11:55pm (Australian Eastern Daylight Time).

## BeImont University

Assistant Professor of Computer Science
Belmont University invites applications for Assistant Professor in Computer Science (tenure-track), to begin August l, 2018.

Details are online at https://csc.belmont. edu/jobs/apcsI8.

## Bentley University

Tenure Track Assistant/Associate Professor, User Experience

Bentley University is seeking to fill a tenure-track professor with a specialization in HCl , product design, user experience, or related fields for a position to start in 2018. This individual would serve as a faculty member and researcher in Bentley's internationally renowned user experience graduate program.

The reputation of our graduate program is grounded in educating top performers in user experience research and design. Central to our students' success is the strong connections the program has forged with leading technology groups throughout the United States and internationally. We support that network with programs on our main campus, San Francisco and online. Further reinforcing this reputation is our well-known User Experience Center, a research and consulting group contracting with tech organizations around the world. Finally, most of our classes have research and design problems sponsored by major tech organizations. As a business
university, our graduate program has a strong focus on the strategic role of the user experience in the competitive positioning of products in the marketplace and fostering continuous product innovation.

Bentley University is an AACSB and EQUIS accredited business university located 11 miles outside of Boston. Bentley leads higher education in the integration of global business with the arts and sciences. We seek faculty and staff who represent diverse backgrounds, interests, and talents.

Candidates are encouraged to learn more about our department by visiting http://www.bentley.edu/graduate/msprograms/hfid.

Required Qualifications:
Candidates must have evidence of research ability and exceptional teaching. A PhD is required and industry experience is a plus.

Application Instructions:
To apply to this position, please submit an online application directly to: http://jobs. bentley.edu/postings/32l2

## Boston College

## Associate or Full Professor of Computer Science

The Computer Science Department of Boston College aims to grow substantially over the next several years, and will seek to fill faculty positions at all levels. We invite applications for a senior-level (Associate or Full Professor) position,
starting in the 2018-2019 academic year. The successful candidate is expected to play a leadership role in the creation of a Data Science program in conjunction with the new interdisciplinary Institute for Integrated Science and Society, recently announced at Boston College, and will also participate in shaping the future of our growing department.

Applicants must have a Ph.D. in Computer Science or closely related discipline, a record of strong research accomplishment and external funding, and a commitment to quality in undergraduate and graduate education. Preference will be given to candidates whose research is in the areas of high-performance data mining I machine learning or data visualization, particularly those with a history of interdisciplinary collaboration, but outstanding candidates in all research areas will be considered. Application review begins October 1, 2017.

See www.cs.bc.edu for more information. To apply go to http://apply.interfolio.com/44982

## Boston College

Computer Science Department
Assistant Professor of the Practice or Lecturer

The Computer Science Department of Boston College aims to grow substantially over the next several years, and will seek to fill faculty positions at all levels. We invite applications for a full-time, non-tenure-track faculty position, beginning in the 2018-

2019 academic year. Candidates should be committed to excellence in undergraduate education, and should be able to both teach a broad variety of undergraduate computer science courses, and to participate in the development of new courses that reflect the evolving landscape of the discipline.

Minimum requirements for the title of Assistant Professor of the Practice include a Ph.D. in Computer Science or closely related discipline. Candidates who have only attained a Master's degree would be eligible for the title of Lecturer. Application review beings October 1, 2017. See www.cs.bc.edu for more information. To apply go to http://apply.interfolio.com/44984.

## Boston College

## Tenure Track Assistant Professor in Computer Science

The Computer Science Department of Boston College aims to grow substantially over the next several years and will seek to fill faculty positions at all levels. We invite applications for one or more tenure-track faculty positions at the rank of Assistant Professor, beginning in the 2018-2019 academic year. Successful candidates will be expected to develop strong research programs that can attract external research funding. The search will focus on candidates who can participate in crossdisciplinary research in conjunction with the new Institute for Integrated Science and Society recently announced at Boston College, in the areas of high-performance data mining / machine learning, systems I networks, data visualization, and

## Professional Opportunities

human-computer interaction. However, outstanding candidates in all research areas will be considered.

Minimum requirements for all positions include a Ph.D. in Computer Science or closely related discipline, an energetic research program that promises to attract external funding, and a commitment to quality in undergraduate and graduate education. Application review begins October 1, 2017. See www.cs.bc.edu for more information. To apply go to http://apply.interfolio.com/44980

## Boston University

## Three Tenure-track Assistant

Professorships
The Department of Computer Science invites applications for three tenure-track assistant professorships beginning July 1, 2018, subject to budgetary approval. Qualifications required of all applicants include a Ph.D. in Computer Science or related discipline, a strong research record, and a commitment to teaching at the undergraduate and graduate levels. Particular attention will be given to candidates pursuing research in security, theory, interactive computing including human-computer interaction, natural language processing, graphics, machine learning, algorithms, systems or other areas of strategic growth.

The Department has 27 tenured and tenure-track faculty, and offers programs leading to B.A., M.S., and Ph.D. degrees. The Department has research strengths in computer vision and learning, data mining,
databases, networking, operating systems and real-time systems, programming languages and software design, security and cryptography, and theory of computation and algorithms. Members of the Department have close collaborative relationships with other units at Boston University (such as mathematics and statistics, computer engineering, biology, marketing, and law) and with faculty at other Boston-area schools.

Review of applications will begin on December 15, 2017 and continue on a rolling basis. Additional information of the Department is available at http://www. bu.edu/cs. Qualified applicants should apply at https://academicjobsonline.org/ ajo/jobs/9828.

Boston University expects excellence in teaching and in research and is committed to building a culturally, racially, and ethnically diverse scholarly community. 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. We are a VEVRAA Federal Contractor.

## Butler University

Assistant Professor of Computer Science and Software Engineering

The Department of Computer Science and Software Engineering at Butler University (www.butler.edu/computer-science) invites applications for a tenure-track
position as Assistant Professor, to start August 2018.

For details, please see our full ad at https://www.butler.edu/hr/facultyopenings, or contact Jon Sorenson (sorenson@butler.edu).

## California State University, Sacramento

Department of Computer Science
Tenure-Track Assistant Professor
Three tenure-track assistant professor positions to begin with the Fall 2018 semester. Applicants specializing in any area of computer science will be considered. Those with expertise in areas related to software engineering, embedded systems, or artificial intelligence are especially encouraged to apply. Ph.D. in Computer Science, Computer Engineering, or closely related field required by the time of the appointment.

For detailed position information, including application procedure, please see http:// www.csus.edu/about/employment/. Screening will begin November 19, 2017, and remain open until filled. AA/EEO employer. Clery Act statistics available. Mandated reporter requirements. Criminal background check will be required.

## Professional Opportunities

## Carnegie Mellon University

## Tenure Track Position in Business Technology

The Tepper School of Business at Carnegie Mellon University invites applicants for a tenure-track position as an Assistant Professor in Business Technology to begin in September 2018. The ideal candidate will play a leading role in advancing the school's analytical approach to business, which is a long-standing differentiator of the Tepper School's approach to business education and research. Applicants are expected to have a doctoral degree at the time of appointment in Information Systems, Economics, Statistics, Marketing, Computer Science or related fields. The Tepper School of Business and Carnegie Mellon University have a strong culture of collaboration across disciplines. This open environment provides unique opportunities for highly innovative work and interdisciplinary work is encouraged.

APPLICATION PROCEDURE: Applicants should submit an application letter, vita, up to three published or unpublished research papers, and three recommendation letters via https://apply. interfolio.com/44254.

Review of applications will begin September 2017. A faculty committee will interview shortlisted candidates at Conference on Information Systems and Technology 2017 in Houston. To receive full consideration, applications must be completed by November 30, 2017.

Question about the application can be addressed to Mr. Phillip Conley, Faculty Search Coordinator for Business Technology, isgroup@andrew.cmu.edu.

Carnegie Mellon University seeks to meet the needs of dual-career couples and is a member of the Higher Education Recruitment Consortium (HERC) that assists with dual-career searches.

For more information about the Business Technology group please visit our webpage at:

## http://bt.tepper.cmu.edu/

Carnegie Mellon University is an equal opportunity employer and is committed to increasing the diversity of its community on a range of intellectual and cultural dimensions. Carnegie Mellon welcomes faculty applicants who will contribute to this diversity through their research, teaching and service, including women, members of minority groups, protected veterans, individuals with disabilities, and others who would contribute in different ways.

## Colby College

## Two Tenure-Track Positions in Computer Science

Colby College invites applications for two tenure-track positions in Computer Science, to start on September 1, 2018. Applicants must hold, or be close to completing, a Ph.D. in computer science, computer engineering, or a related area. We are looking for one position with a research and teaching focus in machine learning and one position with a focus in CS theory (primary) and software development (secondary). The positions allow a balance of teaching and research.

For more information and required materials, see cs.colby.edu. Review of applications will begin on 16 October 2017 and will continue until the positions are filled.

Colby is a private, coeducational liberal arts college that admits students and makes employment decisions on the basis of the individual's qualifications to contribute to Colby's educational objectives and institutional needs. Colby College does not discriminate on the basis of race, color, gender, sexual orientation, gender identity or expression, disability, religion, ancestry or national origin, age, marital status, genetic information, or veteran's status in employment or in our educational programs.

Colby is an Equal Opportunity employer, committed to excellence through diversity, and encourages applications from qualified persons of color, women, persons with disabilities, military veterans and members of other underrepresented groups. Colby complies with Title IX, which prohibits discrimination on the basis of sex in an institutions education programs and activities.

Questions regarding Title IX may be referred to Colby's Title IX coordinator or to the federal Office of Civil Rights. For more information about the College, please visit our website: www.colby.edu

## Colgate University

## Assistant Professor of Computer Science

The Department of Computer Science at Colgate University invites applications for a tenure-stream position in computer science at the rank of Assistant Professor beginning fall semester 2018. Completion of a Ph.D. is expected prior to or shortly after the date of hire, and a commitment to both research and teaching is expected. We are interested in candidates whose scholarship and

## Professional Opportunities

teaching will complement and broaden our program, and we encourage candidates in all areas of specialization to apply. Successful candidates will teach courses in their areas of expertise and help staff departmental courses. All Colgate faculty are expected to participate in alluniversity programs, including the Liberal Arts Core Curriculum.

A cover letter, CV, research statement, teaching statement, and three current reference letters must be submitted through academicjobsonline.org/ ajo/jobs/9813. Colgate strives to be a community supportive of diverse perspectives and identities. All applications should speak directly to the candidate's ability to work effectively with students and colleagues across a wide range of identities and backgrounds. Review of applications will begin November 1 , 2017 and will continue until the position is filled. Colgate University is a highly selective liberal arts university of 2900 undergraduate students situated in central New York state. Colgate faculty are committed to excellence in both teaching and scholarship; and, the department offers excellent teaching and research facilities. To support the candidate's scholarship, Colgate offers numerous funding opportunities, including but not limited to support for travel to professional meetings, for professional development, and for students to participate in the candidate's research projects. Further information about the department can be found at cs.colgate.edu.

Applicants with dual-career considerations can find postings of other employment opportunities at

Colgate and at other institutions of higher education in upstate New York at http://www.upstatenyherc.org. It is the policy of Colgate University not to discriminate against any employee or applicant for employment on the basis of their race, color, creed, religion, age, sex, pregnancy, national origin, marital status, disability, protected Veterans status, sexual orientation and gender identity and expression, genetic information, victims of domestic violence and stalking, familial status, and all other categories covered by law. Colgate is an Equal Opportunity/Affirmative Action employer. Candidates from historically underrepresented groups, women, persons with disabilities, and protected veterans are encouraged to apply.

Please direct questions to the department chair, Vijay Ramachandran, at vramachandran@colgate.edu.

## College of New Jersey

## Tenure-track Assistant or Associate Professor faculty position

The Department of Computer Science at The College of New Jersey (TCNJ) invites applications for a tenure-track Assistant or Associate Professor faculty position in computer science starting August 2018. Candidates must have a Ph.D. in Computer Science, or a closely related field (ABDs will be considered only if the degree will be completed prior to the start date); demonstrated excellence in teaching; and a strong commitment to the education of, and research with, undergraduates.

The Computer Science program is ABET CAC-accredited, offers state-of-the-art laboratories and equipment, and is housed in the new TCNJ STEM building starting in Fall 2017. Founded in 1855, TCNJ is a highly selective public institution that has earned national recognition for its commitment to excellence.

For more details and to apply please check https://chm.tbe. taleo.net/chm03/ats/careers/v2/ viewRequisition?org=TCNJ\&cws=37\&rid=246

## Cornell Tech

Faculty Positions - Computer Science
Faculty positions in computer science are available at the Cornell Tech campus in New York City. Applications are welcome at all levels, including tenured and tenuretrack; applications in the following areas are particularly encouraged: artificial intelligence, machine learning, robotics and other cyber-physical systems, and digital health technology. This search may include Cornell faculty positions that are part of the Jacobs Technion-Cornell Institute. Candidates whose work fits into Jacobs Institute application-domain emphases in the areas of cyber-physical systems (especially in urban environments) and health tech are particularly encouraged.

Faculty hired in these positions will be within the Department of Computer Science, which spans the Ithaca and New York City campuses, but their teaching and research will be based in New York

## Professional Opportunities

City. The department is ranked among the top computer science departments in the country. Interested candidates can apply for a Cornell Tech in NYC position, a Cornell Ithaca CS position, or both, but the two campuses have different application sites; please see the Cornell Ithaca ad for the Ithaca application URL.)

Candidates must hold a Ph.D., have demonstrated an ability to conduct outstanding research at the level of tenure-track or tenured faculty in the Department of Computer Science, and also have a strong commitment to engagement outside of academia in ways that foster significant commercial or societal impact, as aligned with the mission of the Cornell Tech campus. Successful candidates are expected to pursue an active research program, to teach Master's and Ph.D.level graduate courses, and to supervise graduate students.

To ensure full consideration, applications should be received by December 1, 2017, but will be accepted until all positions are filled.

Applicants should submit a curriculum vitae, brief statements of research and teaching interests, identify one or two top publications to which they have made significant contributions, and the names and contact information of at least three references. A distinguishing characteristic of research at Cornell Tech, in addition to world-class academic work, is that it engages deeply with external communities, organizations, K-12 education, and industry to address real-world problems and contexts that amplify the direct commercial
and societal impact of our research. Accordingly, within a clearly identified subsection of the Research Statement, the candidate should address prior accomplishments and future plans related to this kind of direct commercial and/or societal impact of their research.

The above application information should be submitted on-line at https:// academicjobsonline.org/ajo/jobs/9727. Inquiries about your application may be directed to frecruit@cs.cornell.edu

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

## Cornell University

## Tenured, Tenure-track, or Lecturer Positions - Computer Science

Multiple faculty positions in computer science are available at Cornell's Ithaca campus. Applications are welcome in all areas of computer science and related fields and at all levels, including tenured, tenuretrack, and lecturer.

Faculty hired in these positions will be members of the Department of Computer Science, which spans the Ithaca and New York City campuses, but their teaching and research will be based in Ithaca. The department is ranked among the top computer science departments in the country. (Interested candidates can apply for a Cornell Ithaca position, a Cornell

Tech in NYC position, or both, but the two campuses have different application sites; please see the Cornell Tech ad for the NYC application URL.)

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

Ithaca, NY is in the heart of the Finger Lakes region. Both Cornell and Ithaca offer a wide range of cultural activities, sports, and outdoor activities with the pleasures of both city and country close at hand.

To ensure full consideration, applications should be received by December 1, 2017, but will be accepted until all positions are filled.

Applicants should submit a curriculum vitae and brief statements of research and teaching interests, identify one or two top publications to which they have made significant contributions, and arrange to have at least three reference letters submitted at: https:// academicjobsonline.org/ajo/jobs/9726.

Inquiries about your application may be directed to frecruit@cs.cornell.edu.

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

## Professional Opportunities

## Dartmouth College

Tenure Track Open Rank faculty in Cognitive Science

The Cognitive Science Program at Dartmouth College invites applications for a full-time tenure-track position, open rank. Departmental affiliation will be split between the Cognitive Science Program and a disciplinary department, such as Linguistics, Computer Science, or the Psychological and Brain Sciences Department. Candidates should have a PhD and a vibrant research program and strong research record in some area of cognitive science, as well as an ability to teach cross-disciplinary cognitive science courses to undergraduates. We seek applicants with a record of successful teaching and mentoring of students from all backgrounds (including first-generation college students, low-income students, racial and ethnic minorities, women, LGBTQ, etc.).

Candidates should apply to https://apply. interfolio.com/44226.

## Dartmouth College

Assistant or Associate Professor of Computer Science

The Dartmouth College Department of Computer Science invites applications for four tenure-track faculty positions at the level of assistant or associate professor. We seek candidates who will be excellent researchers and teachers in the following four areas: (1) graphics, (2) robotics,
(3) machine learning; and (4) systems.

Outstanding applicants in other areas will also be considered. Applicants should hold a Ph.D. in Computer Science or a related field. We particularly seek candidates who will help lead, initiate, and participate in collaborative research projects within Computer Science and beyond, including Dartmouth researchers from other Arts \& Sciences departments, Geisel School of Medicine, Thayer School of Engineering, and Tuck School of Business.

The Computer Science department is home to 22 faculty members. Research areas of the department encompass the areas of graphics, vision, robotics, machine learning, systems, security, algorithms, theory, computational biology, and digital arts. The Computer Science department is in the School of Arts \& Sciences, and it has strong Ph.D. and M.S. programs and outstanding undergraduate majors. The department is affiliated with Dartmouth's M.D.-Ph.D. program and has strong collaborations with Dartmouth's other schools.

Dartmouth College, a member of the Ivy League, is located in Hanover, New Hampshire (on the Vermont border). Dartmouth has a beautiful, historic campus, located in a scenic area on the Connecticut River. Recreational opportunities abound in all four seasons.

Applicants are invited to submit application materials via Interfolio at http://apply. interfolio.com/44350. Please upload a CV, research statement, and teaching statement, and request at least four references to upload letters of recommendation, at least one of whom
should comment on teaching. Email facsearch-2017@cs.dartmouth.edu with any questions.

We seek candidates who have a demonstrated ability to contribute to Dartmouth's undergraduate diversity initiatives in STEM research, such as the Women in Science Program, E. E. Just STEM Scholars Program, and Academic Summer Undergraduate Research Experience (ASURE). We are especially interested in applicants with a demonstrated track record of successful teaching and mentoring of students from all backgrounds (including first-generation college students, lowincome students, racial and ethnic minorities, women, LGBTQ, etc.).

Dartmouth College is an equal opportunity/ affirmative action employer with a strong commitment to diversity and inclusion. We prohibit discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, marital status, or any other legally protected status. Applications by members of all underrepresented groups are encouraged.

Application review will begin January 1, 2018, and continue until the positions are filled.

## Dickinson College

## Tenure-Track Position in Computer Science

The Department of Mathematics and Computer Science invites applications for a tenure-track position in Computer Science beginning fall 2018. We seek

## Professional Opportunities

candidates with a strong commitment to both teaching and scholarship in a small, highly selective, undergraduate liberal arts environment. Visit https://jobs.dickinson. edu/postings/4069 for additional details and application instructions.

## Fairfield University

Assistant Professor of Computer Science
The School of Engineering at Fairfield University in Fairfield, CT invites applications for a tenure-track assistant professor in Computer Science. Preference will be given to candidates with expertise in Artificial Intelligence, in particular fields related to Data Science such as Machine Learning, Data Mining, or Pattern Recognition. For the full position description and application instructions visit https://fairfield. interviewexchange.com/jobofferdetails. jsp?JOBID=87815.

Fairfield University is an Equal Opportunity/ Affirmative Action employer.

## Furman University

Open-Rank Tenure Track Professor in Computer Science

The Department of Computer Science at Furman University invites applications for an open-rank tenure track position to begin in the fall of 2018. Candidates must have a Ph.D. in Computer Science or a closely related field, and all areas of specialty will be considered. The position requires teaching excellence,
scholarly and professional activity involving undergraduates, effective institutional service, and a willingness to work with colleagues across disciplines.

The Department of Computer Science confers degrees with majors in Computer Science (B.S.) and Information Technology (B.S. and B.A.), an innovative, interdisciplinary program of study. The Department values teaching and research projects that bridge Computer Science with other disciplines, providing students with learning opportunities outside the classroom and in the community, and contributing to Furman's university-wide First Year Writing Seminar program. Furman Computer Science professors mentor undergraduates both formally and informally, and work to build a welcoming student-faculty community.

Furman University is a selective private liberal arts and sciences college committed to helping students develop intellectually, personally, and interpersonally and providing the practical skills necessary to succeed in a rapidly-changing world. Furman professors are exceptional teacherscholars who mentor undergraduate students within a campus community that values and encourages diverse ideas and perspectives. Our recently-launched strategic vision, The Furman Advantage, promises students an individualized four-year pathway facilitated by team of mentors and infused with a rich and varied set of high-impact experiences outside the classroom that include undergraduate research, study away, internships,
community-focused learning, and opportunities to engage across disciplines.

Furman is an Equal Opportunity Employer committed to increasing the diversity of its faculty and staff. The University aspires to create a community of people representing a multiplicity of identities including gender, race, religion, spiritual belief, sexual orientation, geographic origin, socioeconomic background, ideology, world view, and varied abilities. Domestic partners of employees are eligible for comprehensive benefits.

Furman is located in Greenville, South Carolina, which is one of the fastest growing cities in the Southeast and is ranked among "America's Ten Best" by Forbes Magazine. The charming downtown features excellent restaurants, in-town parks, shops, museums, galleries, music venues, and theaters. The city also has excellent public and private schools and a vibrant international community. A 20mile bike and running trail connects the university to Greenville and to Travelers Rest, which was named "one of America's coolest small towns." The surrounding area abounds with outdoor recreational activities and has some of the most beautiful lakes, rivers, and mountains in the country. Greenville is within easy reach of the Blue Ridge Mountains and Atlantic beaches. It is an ideal place to live and work.

Applicants should submit a curriculum vitae, cover letter, statement of teaching philosophy and experience, statement of research interests, an official copy of
most recent transcripts, and a diversity statement that describes how your teaching, scholarship, mentoring and/ or service might contribute to a liberal arts college community that includes a commitment to diversity as one of its core values. Three letters of recommendation should be sent separately. Review of applications will continue until the position is filled. To submit an application and letters of recommendation, please visit https://jobs.furman.edu/postings/6655.

## Georgia Institute of Technology

## Tenure Track Faculty

Computational Science and Engineering solves real-world problems in science, engineering, health, and social domains, by using high-performance computing, modeling and simulation, large-scale "big data" analytics, and machine learning. The School of Computational Science and Engineering of the College of Computing at the Georgia Institute of Technology seeks tenure-track faculty at all levels. Our school seeks candidates who may specialize in a broad range of application areas including biomedical and health; urban systems and smart cities; social good and sustainable development; materials and manufacturing; and national security. Applicants must have an outstanding record of research, a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research with collaborators in other disciplines.

Georgia Tech is located in the heart of metro Atlanta, a home to more than 5.5 million people and nearly 150,000 businesses, a world-class airport, lush parks and green spaces, competitive schools and numerous amenities for entertainment, sports and restaurants that all offer a top-tier quality of life. From its diverse economy, global access, abundant talent and low costs of business and lifestyle, metro Atlanta is a great place to call "home." Residents have easy access to arts, culture, sports and nightlife, and can experience all four seasons, with mild winters that rarely require a snow shovel.

Applications should be submitted online through https://academicjobsonline. org/ajo/jobs/9687. For best consideration, applications are due by December 15, 2017. The application material should include a full academic CV, a personal narrative on teaching and research, a list of at least three references and up to three sample publications. Georgia Tech is an Affirmative Action/Equal Opportunity Employer. Applications from women and under-represented minorities are strongly encouraged.

For more information about Georgia Tech's School of Computational Science and Engineering please visit: http://www.cse.gatech.edu/

## Hamilton College

## Assistant or Associate Professor of Computer Science (2 Positions)

The Computer Science Department at Hamilton College invites applications for two tenure-track positions at the rank of Assistant Professor beginning July lst, 2018. Appointments at the advanced Assistant Professor and early Associate Professor level rank will also be considered. The successful applicant will have a strong commitment to teaching courses at all levels of the department curriculum and to research in their area of specialty. The strongest candidates will be able to demonstrate their experience in teaching or working with diverse student populations. Your cover letter should address the ways in which you would further the College's goal of building a diverse educational environment. An ongoing research program that could involve undergraduate researchers is expected. Research support includes start-up funds, annual conference travel, and a generous sabbatical leave program. The position requires a Ph.D. in Computer Science or closely related field; candidates working on their dissertation with an anticipated completion date before August 2018 will be considered. The standard load is five courses each year.

Send cover letter, curriculum vitae, statements about teaching and research with undergraduates, and arrange for submission of three letters of recommendation via Interfolio at http://apply. interfolio.com/44624. Questions regarding the search may be directed to Professor Mark

## Professional Opportunities

Bailey, Search Committee Chair, at mbailey@ hamilton.edu. Review of application materials will begin October 15, 2017, and continue until the positions are filled.

Other Hamilton College departments searching for tenure-track faculty this academic year are: Art History, Biology, Chemistry, Classics, Economics, Environmental Studies, History, Mathematics, and Philosophy.

Hamilton (www.Hamilton.edu) is a residential liberal arts college located in upstate New York. Applicants with dualcareer considerations can find other Hamilton and nearby academic job listings at https://www.upstatenyherc.org, as well as additional information at https://www. hamilton.edu/offices/dof/faculty-support-resources/resources-for-prospective-or-new-faculty/opportunities-for-spouses-or-partners (Opportunities for Spouses or Partners). Hamilton College is an affirmative action, equal opportunity employer and is committed to diversity in all areas of the campus community. Hamilton provides domestic partner benefits. Candidates from underrepresented groups in higher education are especially encouraged to apply.

## Harvey Mudd College

Assistant Professor Positions in Computer Science

The Computer Science Department at Harvey Mudd College (HMC) has two tenure-track openings for assistant professors commencing July 1, 2018.

Candidates in all areas of computer science will be considered.

HMC is a highly selective undergraduate liberal arts college ( 850 students) emphasizing science, mathematics, and engineering. HMC is part of the Claremont Colleges, a consortium that includes five colleges and two graduate schools.

The Computer Science Department currently has fourteen tenure-track faculty members and serves three major programs (the computer science major, the joint major in computer science and mathematics, and the joint major in mathematical and computational biology) totaling more than eighty students in each graduating class. The department and the college place a high value on engaging students from traditionally underrepresented groups, and candidates from these groups are especially encouraged to apply.

Among the department's strengths are its success in recruiting women (who comprise about half of both our faculty and our majors) to computer science, an innovative and rigorous curriculum that prepares students for both employment and graduate school, and an active research program that involves a substantial number of undergraduates. Most classes are relatively small. The teaching load is two courses per semester, plus supervision of one or two industry-supported senior capstone Computer Science Clinic projects per year. Please visit www.cs.hmc.edu for more information about the department and the Clinic program.

The department is accepting applications via the AcademicJobsOnline system at https:// academicjobsonline.org/ajo/jobs/9628. Candidates should submit: (1) a cover letter describing their interests in teaching undergraduates at Harvey Mudd College in particular and in promoting inclusion and diversity in computer science, (2) a curriculum vita, (3) a statement regarding teaching philosophy and experience, including evidence of commitment to promoting inclusion and diversity as well as teaching evaluations or other evidence of teaching effectiveness, and (4) a statement of research interests and how undergraduates could participate in this work. Concurrently, please request three references to submit letters (the letter writers indicated in the application will automatically receive a request to upload their letters). It is desirable that at least one letter address the candidate's potential as a teacher. All application materials, including letters of reference, should be received by December 1, 2017 to receive maximum consideration.

Questions about the position can be addressed to the search committee chair, Professor Robert Keller, at cssearch@cs.hmc.edu.

Harvey Mudd College is an Equal Opportunity Employer and is committed to the recruitment of candidates traditionally underrepresented on college faculties.

## Professional Opportunities

## Idaho State University

Assistant/Associate Professor of Computer Science

Be part of a great team! Idaho State University's College of Science and Engineering seeks an Assistant/Associate Professor of Computer Science.

For complete job description, requirements, and application instructions visit jobs.isu.edu

## EOE/AA

## Indiana Wesleyan University

Assistant or Associate Professor of Computer and Information Science

POSITION SUMMARY:
Indiana Wesleyan University seeks applications for a full-time permanent faculty position on the Marion, Indiana campus starting Fall 2018. The successful candidate will combine engaging teaching with scholarly endeavors, preferably involving undergraduate research.

## Education Requirements:

Possession of or pursuing an earned doctorate in Computer Science or a closely related field.

Duties And Responsibilities:
Job responsibilities include teaching computer and information science courses at all undergraduate levels as well as student mentoring, curriculum development, and university service. Scholarship and participation in professional organizations
are expected and supported. Teaching load is 12 credits per semester with some opportunities for scholarship load exchange.

Apply at: https://indwes.csod.com/ats/ careersite/JobDetails.aspx?id=556

## IST Austria

Call for Assistant Professors and Professors

IST Austria (www.ist.ac.at) invites applications for

PROFESSOR OR ASSISTANT PROFESSOR (TENURE TRACK) POSITIONS in areas of Computer Science and Data Science

Applicants in software systems (operating, distributed, database systems), algorithms, machine learning, and robotics are particularly encouraged to apply.

We offer:

- Competitive start-up package and salary
- Guaranteed, annual base funding
- Support and benefits for acquiring third party funds
- Multiple positions are open

IST Austria is a young international institute dedicated to world-class basic research and graduate education in the natural and mathematical sciences. Our PhD program involves a multi-disciplinary course schedule and rotations in research labs. Currently 40 research groups are active in the fields of biology, neuroscience, physics, mathematics, and computer
science. The institute will grow to about 90 research groups by 2026. We hire scholars from diverse international backgrounds. Our working language is English. The campus of IST Austria is located about 15 km distant from Vienna, a city with high quality of life.

Candidates for tenured positions must be internationally accomplished scientists in their respective research fields and have at least six years of experience in leading a research group.

Assistant Professors receive independent group leader positions with an initial contract of six years, at the end of which they are evaluated by international peers. The outcome of this evaluation determines if an Assistant Professor is promoted to a tenured Professor position.

Successful candidates are expected to apply for external research funds and participate in graduate teaching.

Please apply online at: www.ist.ac.at/ professor-applications

Applications should include a curriculum vitae, a list of publications, as well as a research statement, including a description of the most important scientific achievements and planned future research activities.

The closing date for applications is November 2, 2017.

IST Austria values diversity and is committed to equal opportunity. Female researchers are especially encouraged to apply.

## Professional Opportunities

## IUPUI

## 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.

The Purdue School of Engineering and Technology at IUPUI has 7 academic departments with an extensive undergraduate and graduate degree portfolio, including numerous CAC, EAC, and

ETAC of ABET accredited B.S programs. The School has over 3,500 students, including approximately 500 graduate students pursuing either M.S. or Ph.D. programs. More information about the School is available at engr.iupui.edu/

The IUPUI campus has approximately 30,000 students and over 200 degree programs with annual research expenditures totaling over $\$ 300 \mathrm{M}$. IUPUI has received the Higher Education Excellence in Diversity (HEED) Award for five consecutive years. More information about IUPUI is available at www.iupui.edu

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

## IUPUI

## Lecturer of Computer and Information Technology

The Purdue School of Engineering and Technology, Indiana University-Purdue University at Indianapolis (IUPUI) invites applications for two lecturers or senior lecturers in the area of Information Technology. The anticipated start date is August 1, 2018 or possibly earlier.

The first position will focus on teaching undergraduate courses at all levels with a focus on web and mobile application development, programming, and implementation of web-based applications. The second position will focus on teaching introductory information technology courses and coordinate the experience of first-year undergraduate students. Experience with curriculum development and/or preparation of high school students for college is an advantage.

The positions require teaching diverse undergraduate students, conducting scholarship of teaching and learning, and service to the Department, School, and IUPUI campus.

Qualifications include an M.S. in Information Technology or a closely-related discipline from an accredited institution of higher education; proven experience in the discipline; and the ability to translate theories and concepts into practical applications.

Provide a CV, statement of teaching interests/ philosophy with summary of teaching evaluations (if any), and contact information for at least three references. Applications are welcome until the position is filled.

Candidates interested in the web and mobile application development position or the firstyear experience coordinator position should apply online at http://indiana.peopleadmin. com/postings/4338.

IUPUI is an affirmative action/equal opportunity employer.

## Professional Opportunities

## Johns Hopkins University

Full-Time Teaching Position

The Department of Computer Science at Johns Hopkins University seeks applicants for a full-time teaching position. This is a career-oriented, renewable appointment that is responsible for the development and delivery of courses primarily to undergraduate students both within and outside the major. Teaching faculty are also encouraged to engage in departmental and university service and may have advising responsibilities. Opportunities to teach graduate level courses may also be available, depending on the candidate's background. Extensive grading support is given to all instructors. The university has instituted a non-tenure track career path for full-time teaching faculty culminating in the rank of Teaching Professor.

Johns Hopkins is a private university known for its commitment to academic excellence and research. The Computer Science department is one of nine academic departments in the Whiting

School of Engineering. We are located in Baltimore, MD in close proximity to Washington, DC and Philadelphia, PA. See the department webpages at http://www. cs.jhu.edu for additional information about the department, including undergraduate programs and current course descriptions. Applicants for the position must have a Ph.D. in Computer Science or a closely related field, demonstrated excellence in and commitment to teaching, and excellent communication skills.

Applicants should apply online at https:// academicjobsonline.org/ajo/jobs/957l. Applications will be evaluated on a rolling basis. Questions should be directed to lecsearch2017@cs.jhu.edu.

The Johns Hopkins University is committed to active recruitment of a diverse faculty and student body. The University is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities and encourages applications from these and other protected group members. Consistent with the University's goals of achieving excellence in all areas, we will assess the comprehensive qualifications of each applicant.

The Whiting School of Engineering and the Department of Computer Science are committed to building a diverse educational environment.

## Johns Hopkins University

## Lecturer - Information Security

The Information Security Institute at Johns Hopkins University seeks highly qualified candidates for a full-time teaching position. This is a career-oriented, renewable appointment that is responsible for developing and delivering courses primarily to students enrolled in the Master of Science in Security Informatics (MSSI) program. Teaching faculty are also encouraged to engage in institute and university service and will have advising responsibilities and other duties in support
of the Director of the MSSI Program. Extensive grading support is given to all instructors. The university has instituted a non-tenure track career path for full-time teaching faculty culminating in the rank of Teaching Professor.

Johns Hopkins is a private university known for its commitment to academic excellence and research. The Johns Hopkins University Information Security Institute is the University's focal point for research and education in information security, assurance and privacy. We are located in Baltimore, MD in close proximity to Washington, DC and Philadelphia, PA. See the institute web pages at http://isi.jhu.edu for additional information about the Institute, including the MSSI program and current course descriptions.

Applicants for the position must have a Ph.D. in Computer Science or a closely related field, demonstrated excellence in and commitment to teaching, and excellent communication skills. Applicants should apply online at http://apply.interfolio. com/44267. Please submit a cover letter, curriculum vitae, teaching statement, and recent teaching evaluations. Three letters of reference will also be required. Letter writer information should be provided in the application. Applications will be evaluated on a rolling basis. Questions should be directed to jhuisisearch2017@jhu.edu.

The Johns Hopkins University is committed to active recruitment of a diverse faculty and student body. The University is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities

## Professional Opportunities

and encourages applications from these and other protected group members. Consistent with the University's goals of achieving excellence in all areas, we will assess the comprehensive qualifications of each applicant.

The Whiting School of Engineering and the Information Security Institute are committed to building a diverse educational environment.

## Johns Hopkins University

Tenure-Track Faculty Positions
The Johns Hopkins University's Department of Computer Science seeks applicants for tenure-track faculty positions at all levels and across all areas of computer science. Particular emphasis is at the junior level and in the areas of systems, distributed systems, networks, system security, data center scale computing, and big data infrastructure. However, qualified applicants in all areas of computer science will be considered.

The Department of Computer Science has 30 full-time tenured and tenuretrack faculty members, 8 research and 3 teaching faculty members, 150 PhD students, 225 MSE/MSSI students, and over 300 undergraduate students. There are several affiliated research centers and institutes including the Laboratory for Computational Sensing and Robotics (LCSR), the Center for Language and Speech Processing (CLSP), the JHU Information Security

Institute (JHUISI), the Institute for Data Intensive Engineering and Science (IDIES), the Malone Center for Engineering in Healthcare (MCEH), and other labs and research groups. More information about the Department of Computer Science can be found at www.cs.jhu.edu and about the Whiting School of Engineering at https://engineering.jhu.edu. Qualifications and required materials can be found at http://www.cs.jhu.edu/ about/employment-opportunities/.

Applicants should submit a curriculum vitae, a research statement, a teaching statement, three recent publications, and complete contact information for at least three references. Applications must be made online at https:// academicjobsonline.org/ajo/jobs/9559. Review of applications will begin in December 2017. While candidates who complete their applications by December 15,2017 will receive full consideration, the department will consider exceptional applicants at any time. Questions should be directed to fsearch2017@cs.jhu.edu.

The Johns Hopkins University is committed to active recruitment of a diverse faculty and student body. The University is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities and encourages applications from these and other protected group members. Consistent with the University's goals of achieving excellence in all areas, we will assess the comprehensive qualifications of each applicant

The Whiting School of Engineering and the Department of Computer Science are committed to building a diverse educational environment.

## Le Moyne College

## Assistant Professor / Professor of Practice - Cybersecurity

Le Moyne College is starting a new interdisciplinary cybersecurity program and is seeking a candidate with a Ph.D. or significant industry experience in cybersecurity or cognate field. This position starts in August, 2018. Le Moyne College strives for academic excellence through its comprehensive programs rooted in the liberal arts and sciences.

For more information and how to apply visit our website at www.lemoyne.edu/ employment.

Preference given to applications received by Dec. 8, 2017. Review will continue until position is filled.

Le Moyne College is an equal opportunity employer and encourages women, persons of color, and Jesuits to apply for employment.

## Lehigh University

## Robotics \& Control Faculty Search

The P.C. Rossin College of Engineering \& Applied Science (RCEAS) at Lehigh University invites nominations and applications from qualified individuals for

## Professional Opportunities

the senior/junior tenure-track positions in the area of robotics \& control.

Lehigh University is investing more than \$250M over the next few years on new innovative research and academic programs to enhance its intellectual footprint. The P.C. Rossin College of Engineering has a strong and diverse team of faculty members researching in the core disciplines of robotics, controls, and intelligent systems. This faculty search aims at expanding our core team to accelerate growth of interdisciplinary research in the area of robotics and controls.

We invite applications from outstanding faculty candidates at both junior and senior levels for multiple tenure-track positions in all aspects of robotics and controls, including (but not limited to):

- Perception and learning in robotics
- Field \& industrial robotics
- Control and planning of autonomous systems
- Micro-, nano-scale robotics
- Haptics, human-robot interaction, social robotics
- Biologically inspired and soft robotics

Candidates should have a Ph.D. in Computer Science, Mechanical Engineering, Electrical Engineering, Chemical Engineering or a related field and a distinguished record of research scholarship, and qualify for the rank of assistant, associate, or full professor. Candidates must also
exhibit a commitment to excellence in teaching and mentoring, including working with students and groups from underrepresented backgrounds. RCEAS is committed to increasing the diversity of the campus community.

Candidates who have experience working with a diverse range of faculty, staff, and students, and who can contribute to the climate of inclusivity are encouraged to identify their experience in these areas. Lehigh University is an affirmative action/equal opportunity employer and provides competitive salaries and comprehensive benefits, including partner benefits. Candidate reviews will begin on Nov 15th, 2017 and continue until the positions are filled.

For full consideration, applicant materials must be received on-line at https:// academicjobsonline.org/ajo/jobs/9860. Inquiries can be directed to Professors Mooi Choo Chuah and Nader Motee, Co-Chairs of the Search Committee at (robotic-search@lehigh.edu).

## Michigan Technological University

Dean, College of Sciences and Arts
Michigan Technological University invites applications and nominations for the position of Dean of the College of Sciences and Arts (CSA). The dean is the CSA's chief academic and administrative officer, and is responsible for fostering successful collaborations among personnel within
the CSA, other areas of the University, and external constituencies

For more information about the position, including application information, please visit mtu.edu/dean-CSA. Application review will begin on November 1.

Michigan Technological University is an EOE, which includes providing equal opportunity for protected veterans and individuals with disabilities

## Missouri State University

Assistant Professor, Computer Science
Missouri State University invites applications for a full-time tenure-track Assistant Professor in our Computer Science Department. PhD in CS or closely related field is required (ABD considered). Start date: August, 2018; first consideration: November l, 2017.

For more information and instructions visit https://jobs.missouristate.edu/postings.

Employment will require a criminal background check at University expense.

EO/AA/M/F/Veterans/Disability/Sexual Orientation/Gender Identity.

## Professional Opportunities

## Massachusetts Institute Of Technology

## Faculty Positions

The Massachusetts Institute of Technology (MIT) Department of Electrical Engineering and Computer Science (EECS) seeks candidates for faculty positions starting in September 1, 2018, or on a mutually agreed date thereafter. Appointment will be at the assistant or untenured associate professor level. In special cases, a senior faculty appointment may be possible. Faculty duties include teaching at the undergraduate and graduate levels, research, and supervision of student research. Candidates should hold a Ph.D. in electrical engineering and computer science or a related field by the start of employment. We will consider candidates with research and teaching interests in any area of electrical engineering and computer science.

Candidates must register with the EECS search website at https://school-of-engineering-faculty-search.mit.edu/ eecs/, and must submit application materials electronically to this website. Candidate applications should include a description of professional interests and goals in both teaching and research. Each application should include a curriculum vitae and the names and addresses of three or more individuals who will provide letters of recommendation. Letter writers should submit their letters directly to MIT, preferably on the website or by mailing to the address below. Complete applications
should be received by December 1, 2017. Applications will be considered complete only when both the applicant materials and at least three letters of recommendation are received.

It is the responsibility of the candidate to arrange reference letters to be uploaded at https://school-of-engineering-facultysearch.mit.edu/eecs/ by December 1, 2017.

Send all materials not submitted on the website to:

## Professor Asu Ozdaglar

Interim Department Head, Electrical Engineering and Computer Science
Massachusetts Institute of Technology Room 38-435
77 Massachusetts Avenue
Cambridge, MA 02139
M.I.T. is an equal opportunity/affirmative action employer.

## Montana Tech

## Assistant Professor-Computer Science

The Department of Computer Science at Montana Tech is seeking qualified applicants for a tenure track position at the Assistant Professor level with expertise in software engineering, computer science, and/or information sciences/systems. The position start date is January 2, 2018. Responsibilities include teaching software engineering and computer science at all undergraduate levels, active scholarship, and service to the department and college. An earned Ph.D. in Software Engineering,

Computer Science, and /or a closely related field with significant experience in the aforementioned areas is preferred, but an ABD (completion of Ph.D. required within one year of hire) will be considered. The following are preferred qualifications for this position: (1) prior university level teaching experience, (2) evidence of ongoing scholarly activity, (3) experience in data science and/or the statistical analysis of big data, (4) networks/security/web science, and/or (5) software engineering.

To apply, http://montanatechuniversity. applytojob.com/apply

## National University of Singapore

Postdoc in Dynamic Enhancement \& Personalization of Educational Technology

Postdoc will set agenda in collaboration with Joseph Jay Williams and Min Yen Kan (www.josephjaywilliams.com/ hcipostdoc).

Topics include intelligent systems for conducting interventions to dynamically enhance and personalize real-world education (from KI2/university students to crowd workers), crowdsourcing \& human computation, interpretable and interactive machine learning.

## Professional Opportunities

## NEC Laboratories America

## Researcher

The Optical Networking and Sensing Research Department of NEC Laboratories America, located in Princeton, NJ , is seeking a Researcher. The successful candidate will participate in the development of datadriven social infrastructure solutions and should be able to work independently and as part of a team, show critical thinking and fast learning ability in their approach to problem solving.

Job Duties:

- Research, develop, train, implement and evaluate machine learning models and new algorithms
- Search for and process data from the various sensing and IoT hardware
- Understand and leverage new data sources and integrate traditional structured data with unstructured data from physical and social media
- Assess business /customer requirements and translate them into data acquisition hardware and software specifications
- Develop data quality measures of recorded data and a framework that assesses data quality and cleanse data
- Collaborate closely with data scientists, engineering teams, data architects, platform developers to develop dataintegration solutions


## Required Skills and Knowledge:

- PhD in Computer Science, Statistics, or related field
- Extensive research and development experience in data mining and machine learning
- Strong mathematical, statistical and programmatic knowledge
- Advanced signal processing and information theory background
- Solid understanding of design and analysis of algorithms and data structures
- Experience with large scale optimization and learning
- Experience with various deep learning libraries and data visualization platforms
- Development skills in programming languages such as C, C++, C\#, Objective C, or JavaScript
- Development skills in modeling languages such as Matlab, R, etc.
- Proficient knowledge of Linux environment
- Debugging and troubleshooting the realtime issues
- Independently operating hardware platform and running system testing

For consideration, submit your CV and research statement through our career center at https://www.appone.com/ MainInfoReq.asp?R_ID=I715660.

EOE-M/F/V/D

## NEC Laboratories America

Associate Researcher - Mobile<br>Communications and Networking

The Mobile Communications and Networking research department at NEC Laboratories America in Princeton, NJ, has Associate Researcher positions available.

The department is engaged in smart retail and smart city infrastructure projects that use autonomous sensing and actuation platforms with sensors that use different wireless modalities such as RF (e.g., RFID, Bluetooth) and acoustics. The sensing infrastructure includes fixed sensors and mobile sensors mounted on drones and robots. The projects leverage IoT networks at the communication layer (e.g., LoRa, LTE-M, NB-IoT) and various IoT platform components at the data aggregation and analytics layers. The current search is for candidates to develop systems using these technologies.

Candidates with experience in building wireless networking and/or sensing systems with expertise in one or more of the following: software radios, embedded systems, autonomous/mobile sensing platforms, IoT networks/platforms and systems development at the applications/ services layers are invited to apply.

Minimum requirement for this position is a Master's degree (obtained or expected) in EE or CS. Candidates are expected to assist in the design and prototyping of novel technologies, help with technology

## Professional Opportunities

transfer to relevant business units within the company, and contribute to preparing external publications as needed.

For more information about NEC Labs America, 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=I696934.

EOE-M/F/V/D

## Northeastern University

## Assistant/Associate/Full Professor

## Position Summary

The College of Computer and Information Science invites applications for several tenure-track and tenured faculty positions, beginning in Fall 2018. Applicants at all ranks will be considered. Candidates will be considered from all areas in Computer, Data and Information Science. Candidates are expected to have or to develop an independently funded research program of international caliber and to participate in undergraduate and graduate teaching.

## Qualifications

A PhD in Computer Science, Information Science or a related field is required by the start date.

## Additional Information

The College has a diverse full-time faculty of 62 , and offers a broad array of educational opportunities to students. Since 2012, the College has hired 42
outstanding faculty members, and plans to continue this strategic growth in the coming years. The College offers 4 undergraduate degrees (CS, IS, Data Science and Cyber Security); 5 MS degrees (CS, Health Informatics, Health Data Analytics, Data Science and Information Assurance and Cyber Security) and 4 PhD degrees (CS, Network Science, Personalized Health Informatics, and Information Assurance). Several of these are interdisciplinary degrees with other Colleges at Northeastern. In addition, 15 faculty members have joint appointments with other academic departments, including Electrical and Computer Engineering, Art and Design, Health Sciences, Chemistry, Physics, Political Science, Psychology, Business, and Law.

CCIS faculty members are integral parts of Northeastern University's multidisciplinary institutes including the Network Science Institute and the newly formed Cybersecurity and Privacy Institute.

CCIS has grown rapidly over the last five years in response to increased student demand at the BS, MS and PhD level and will continue this rapid growth for the next few years. We invite you to join a fast-moving, ambitious college with an underlying mission that is best captured by the phrase "CS for Everyone."

Northeastern University is home to 35,000 full- and part-time degree students and to the nation's premier cooperative education program. The past decade has witnessed a dramatic increase in Northeastern's international reputation for research
and innovative educational programs. A heightened focus on interdisciplinary research and scholarship is driving a faculty hiring initiative at Northeastern, advancing its position amongst the nation's top research universities. The College has been a major participant in this initiative and will continue the efforts this year, with additional interdisciplinary searches ongoing in related areas. For more information about the College, please visit http://www.ccis. northeastern.edu/

Northeastern University is located on the Avenue of the Arts in Boston's historic Back Bay. The College occupies a state of the art building opposite Boston's Museum of Fine Arts.

Additional information and instructions for submitting application materials may be found at the following web site: https://neu. peopleadmin.com/postings/50672

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.

Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. 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 the law. Northeastern University is an E-Verify Employer.

## Professional Opportunities

## Northeastern University

Postdoc Research Associate

Seeking postdoctoral research associate for a project at the intersection of player experience and real-time crowdsourcing. Experience with human-computer interaction methods, game design, system development, user testing, and crowdsourcing is desirable. The project will be under the supervision of Seth Cooper at Northeastern University. The postdoc will assist in the interpretation and publication of results and writing grants, as well as maintain the laboratory, and may exercise functional supervision over supporting research staff. Primary responsibility is ensuring that the research is complete. The appointment will be one year, but can be extended depending on available funding.

Qualifications. Must have a Ph.D. or equivalent; be able to undertake substantially full-time research or scholarship; work under the supervision of a senior scholar.

Please apply for this position at: https:// neu.peopleadmin.com/postings/50663

## NYU Shanghai

## Tenured/Tenure Track Position

NYU Shanghai is currently inviting applications for tenured/tenure track positions in Computer Science at the rank of assistant, associate, or full professor. More than one position may be available.

We invite strong applicants from all areas of computer science, although priority will be given to candidates from machine learning, artificial intelligence, computer science theory, and systems. Candidates whose work is methodologically data driven are particularly encouraged to apply. Successful candidates will demonstrate a capacity for both research excellence and high-quality instruction in the classroom, and must have completed a Ph.D. or equivalent by the time of appointment. It is expected that successful candidates will supervise Ph.D. students, collaborate with NYU Shanghai and NYU faculty, and seek funding opportunities both in China and US. Successful candidates will have affiliations in NYU departments and will be eligible to pursue US federal grant opportunities.

Review of applications will begin December 15 and will continue until the position is filled; early application is encouraged. Junior applicants should also submit the names and email addresses of at least three referees, who will be contacted to upload their reference letters. In the case of mid-career and senior applicants, reference letters will be requested at a later stage as needed. Please visit our website at https:// shanghai.nyu.edu/en/about/work-here/open-positions-faculty for instructions and other information on how to apply. To apply, follow this link http://apply.interfolio.com/44469. If you have any questions, please email pr46@nyu.edu.

About NYU Shanghai:
NYU Shanghai is the newest degreegranting campus within New York

University's global network. It is the first higher education joint venture in China authorized to grant degrees that are accredited in the U.S. as well as in China. All teaching is conducted in English. A research university with liberal arts and science at its core, it resides in one of the world's great cities with a vibrant intellectual community. NYU Shanghai recruits scholars of the highest caliber who are committed to NYU's global vision of transformative teaching and innovative research and who embody the global society in which we live.

NYU's global network includes degreegranting campuses in New York, Shanghai, and Abu Dhabi, complemented by eleven additional academic centers across five continents. Faculty and students circulate within the network in pursuit of common research interests and cross-cultural, interdisciplinary endeavors, both local and global.

NYU Shanghai is an equal opportunity employer committed to equity, diversity and social inclusion. We strongly encourage applications from individuals who are under-represented in the profession, across color, creed, race, ethnic and national origin, physical ability, and gender and sexual identity. NYU Shanghai affirms the value of differing perspectives on the world as we strive to build the strongest possible university with the widest reach.

EOE/AA/Minorities/Females/Veterans/ Disabled/Sexual Orientation/Gender Identity Employer

## Professional Opportunities

## Pomona College

## Tenure-track Assistant or Associate

Professor of Computer Science
Computer Science Department, Pomona College: Tenure-track Assistant or Associate Professor, beginning July 1, 2018. Teaching load: 2/2. Ph.D. required. The position is open to all areas of computer science.

Pomona College, the founding member of the Claremont Colleges, is a highly selective liberal arts college in southern California and attracts a diverse, national student body. The Computer Science

Department supports equal access to higher education. The successful candidate will have experience working with students from diverse backgrounds and a demonstrated commitment to improving higher education for underrepresented students.

Please submit the following application materials online (https:// academicjobsonline.org/ajo/jobs/9796): cv; graduate transcripts; three or more letters of recommendation, at least one evaluating teaching; and three statementsone addressing teaching philosophy, one addressing scholarship and one addressing ability to mentor a diverse student body.

Review of applications will begin on December l, 2017.

Further information at http://www. cs.pomona.edu/search2018.html or cssearch@pomona.edu.

## Princeton University

Faculty Positions Available

The Lewis-Sigler Institute for Integrative Genomics (LSI) at Princeton University invites applications for tenure-track faculty positions at the Assistant Professor level; in exceptional cases, more senior appointments may be considered. We are seeking outstanding computational and experimental scientists with strong accomplishments in quantitative or systems-level approaches to the different disciplines and fields represented by LSI faculty, including computational genomics, population genomics, metabolomics, and other -omics technologies, biophysics, aging, subcellular assembly, developmental patterning, and quantitative imaging.

The LSI is housed in the Carl Icahn Laboratory at Princeton University. It was established to innovate in research and teaching at the interface of modern biology and the more quantitative sciences. The Institute provides significant support to its faculty through heavy investment in state-of-the-art research infrastructure, an NIH -funded graduate training program, and a high level of administrative support.

Faculty positions are jointly appointed in one of the following academic departments at Princeton: Physics, Chemistry, Molecular Biology, Ecology and Evolutionary Biology, Chemical and Biological Engineering, or Computer Science. These joint faculty positions offer significant benefits in terms of infrastructure, research funds, and collaborative opportunities, as well as
an opportunity to interact with unusually able and interdisciplinary students. The successful candidate will have research laboratories in the LSI, and teaching responsibilities (both graduate and undergraduate) will be shared with the home department.

## Essential Qualifications

All applicants must have a Ph.D., M.D., or equivalent degree. In addition, applicants must have a strong record of research productivity, demonstrate the ability to develop a rigorous research program, and be committed to teaching at both the undergraduate and graduate levels.

## How to Apply

Applications must be submitted online at: https://www.princeton.edu/acadpositions/position/3121 and should include a cover letter, curriculum vitae that includes a list of publications, a concise 1-2 page research vision statement, as well as contact information for three references.

Applications will be reviewed beginning on November 15, 2017, and will continue until the position is filled.

Princeton University is an Equal Opportunity/Affirmative Action Employer and all qualified applicants will receive consideration for employment without regard to age, race, color, religion, sex, sexual orientation, gender identity or expression, national origin, disability status, protected veteran status, or any other characteristic protected by law. This position is subject to the University's background check policy.

## Professional Opportunities

## Rowan University

Computer Science Faculty Assistant Professor

The Computer Science Department at Rowan University invites applications for a tenure-track Assistant Professor position, to begin September 2018. The candidate's primary area of specialization should be Cyber Security and/or Cloud Computing. Exceptionally strong candidates in other areas, as well as those with a background in industry, will be considered. In addition to regular teaching responsibilities, the successful candidate is expected to develop an externally-funded research program involving undergraduate and/or graduate students, and to take a leadership role in the development and expansion of curricular programs in their area of specialization. At the time of appointment, candidates must have earned a Ph.D. in Computer Science or a closely related field.

The Computer Science Department offers an ABET-accredited B.S. Computer Science degree along with a B.A. degree in Computing and Informatics, an M.S. degree in Computer Science, and an M.S. in Data Analytics. The Computer Science faculty will have opportunities to mentor graduate students and serve on thesis committees.

Deadline for receipt of applications is Friday, October 13, 2017. The application must be submitted through our online application system as a single file (PDF format) containing a letter of application, a curriculum vitae, a detailed description of research interests and plans, a statement
of teaching philosophy, and graduate transcripts (copies acceptable). Three letters of recommendation should be emailed on the candidate's behalf directly to the Computer Science Search Committee at CSsearch@rowan.edu.

Please complete the online application at: http://rowanuniversity.hodesiq.com/jobdetails.aspx?jobid=5492606

Application Deadline: 10/13/17
Rowan University values diversity and is committed to equal opportunity in employment.

All positions are contingent upon budget appropriations.

## Rutgers University-Newark

Assistant/Associate Professor

Rutgers University-Newark (RU-N) has an open Assistant or Associate Professor position in Computer Science/Data Science. We seek applicants with exceptional interdisciplinary research programs focusing on computational methods in machine learning or mathematical modeling of complex data sets.

This hire is part of the unit's larger effort to establish and augment its interdisciplinary computer science capabilities. We have access to state-of-the-art computational resources including the Rutgers-wide Amarel high-performance computing environment, and a newly renovated lab overlooking downtown Newark and New

## SJSU <br> SAN JOSÉ STATE UNIVERSITY

Computer Engineering
The Computer Engineering Department at San José State University (SJSU) invites applications for two tenure-track faculty positions at the rank of Assistant or Associate Professor (10 mo. Apt.) Areas of interest include virtual and augmented reality, machine learning and artificial intelligence, robotics, cloud computing and virtualization, big data, networking, mobile systems, cyber security, computer systems architecture, FPGA, and embedded systems, other areas in computer and software engineering will be considered. Applicants must have a doctorate in Computer/Software Engineering, Computer Science, Electrical Engineering or a closely related field by the start of the appointment. For more information about the position and to apply, go to: http://apptrkr.com/1081340.
SJSU is an Affirmative Action/ Equal Opportunity committed to the core values of inclusion, civility, and respect for each individual. A background check (including a criminal records check) must be completed satisfactorily before any candidate can be offered a position with the CSU.

## SJSU is EO/AA Employer

## Professional Opportunities

York City. We are a short (20 minute) train ride from New York City with easy access to universities in New York and New Jersey, and benefit from the area's strong technology environment.

Applicants should hold a Ph.D. in Computer Science, Computational Statistics, or a related field and be capable of teaching courses in Computer Science and Data Science. Please submit applications by November 1st, 2017 to ensure full consideration.

For complete job description, requirements, and application instructions visit https://jobs. rutgers.edu/postings/52021

## Saint Louis University

Visiting Researcher on Network
Management and Medical
Cloud Computing
We have openings for visiting researchers on SDN/NFV/Network Management (PhD student level). Applications may be disasterresponsiveness or medical imaging (e.g., research on networked applications that interface with microscope management software). Details on eligibitliy and how to apply at http://cs.slu.edu/~esposito/ Esposito-job-posting.pdf

## Southeast Missouri State University

Assistant Professor - Information Systems/Computer Science Department of Computer Science

Southeast Missouri State University seeks a tenure track assistant professor of computer science to teach undergraduate and graduate courses in computer science and computer information systems.

For complete job announcement and application procedure, visit: http://agency. governmentjobs.com/semoedu/default. cfm?promotionaljobs=l.

An equal opportunity, affirmative action employer.

## Stanford University

## Department of Computer Science Faculty Openings

The Department of Computer Science at Stanford University invites applications for tenure track faculty positions at the junior level (Assistant or untenured Associate Professor) and for tenured faculty positions at the Associate Professor level. We give higher priority to the overall originality and promise of the candidate's work than to the candidate's sub-area of specialization within Computer Science.

We are seeking applicants from all areas of Computer Science, spanning theoretical foundations, systems, software, and applications. We are also
interested in applicants doing research at the frontiers of Computer Science with other disciplines, including but certainly not limited to those in the engineering, mathematical, medical, physical, and social sciences. Junior applicants must have completed (or be completing) a Ph.D., must have demonstrated the ability to pursue a program of research, and must have a strong commitment to graduate and undergraduate teaching. A successful candidate will be expected to teach courses at the graduate and undergraduate levels, and to build and lead a team of graduate students in Ph.D. research. Further information about the Computer Science Department can be found at http://cs.stanford.edu. The School of Engineering website may be found at http://soe.stanford.edu.

Application Requirements:

- All applications should include a curriculum vita, list of publications, and brief statements of research and teaching interests.
- Applicants for Assistant rank positions should submit the names and contact information of at least four references.
- Applicants for Associate rank positions should also submit the names and contact information of at least four references. We will request letters of recommendation for a short list of finalists only.

Please apply online at https://www. applyweb.com/cgi-bin/app?s=STANFAC. You will need to create a CollegeNet account

## Professional Opportunities

if you do not already have one. Questions should be directed to, Search Committee Chair, c/o Laura Kenny-Carlson, via electronic mail to search@cs.stanford.edu.

The review of applications will begin on November 17, 2017, and applicants are strongly encouraged to submit complete applications by that date for full consideration; however, applications will continue to be accepted until January 14, 2018.

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

## Stanford University

School of Engineering and School of Humanities and Sciences
Faculty Opening in Quantum Science and Engineering

The Schools of Engineering and Humanities and Sciences at Stanford University (http://soe.stanford.edu/ and https:// humsci.stanford.edu) invite applications for a tenure-track faculty appointment at the junior level (Assistant or untenured Associate Professor) in the broadly defined field of quantum science and engineering with particular emphasis on all aspects of quantum computing and information. Priority will be given to the overall
originality and promise of the candidate's work over any particular specialization area or department affiliation.

Applicants should have a Ph.D., evidence of the ability to pursue an independent program of research, a strong commitment to both graduate and undergraduate teaching, and the ability to initiate and conduct research across disciplines. A successful candidate is expected to be appointed in one or two of the departments of Applied Physics, Computer Science, Electrical Engineering, Materials Science and Engineering, or Physics, although a joint appointment with another department or with SLAC will be considered depending on the candidate's research area and teaching plan. The candidate will be expected to teach courses at the graduate and undergraduate levels and to build and lead a team of graduate students in Ph.D. research.

Applicants must send materials to the search committee through Academic Jobs

Online. Candidates should upload a cover letter, curriculum vitae, publication list, a research and teaching statement (maximum three pages, combined), and arrange to have five letters of reference submitted online at

## https://academicjobsonline.org/ajo/ jobs/9550

Inquiries may be directed to J. Tice, Dept. of Physics, 382 Via Pueblo Mall, Stanford University, Stanford, CA 94305-4060, or to tice@stanford.edu.

The due date for submission of all materials, including letters of reference, is December 1, 2017.

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

## Texas A\&M International University

## School of Engineering <br> Assistant Professor of Computer Science

The School of Engineering at Texas A\&M International University (TAMIU) (http:// www.tamiu.edu) invites applications for a tenure-track Assistant Professor position in Computer Science.

The successful candidate should hold a Ph.D. in Computer Science or a closely related field. Applicants should demonstrate a strong commitment to undergraduate teaching, community relations, excellence in research, and collegiality. Development of a competitive research program is expected.

The start date for the position is Fall 2018. Salary is competitive and commensurate with experience and qualifications. All applications must be submitted through https://employment.tamiu.edu. Completed employment application must include a cover letter, curriculum vitae, teaching philosophy, research statement, and names and contact information of three professional references.

TAMIU is an Eo / AA / Veterans /
Disability Employer
Applicants are subject to a criminal history investigation and employment is contingent on the results of the criminal history investigation.

## Texas State University

Computer Science Assistant Professor and Senior Lecturer

The Department of Computer Science invites applications for three faculty positions:

1. Two tenure-track Assistant Professor positions to start on September 1, 2018. Review date is January 8, 2018. We are seeking candidates to complement and enhance our research in data analytics, human-computer interactions, artificial intelligence, computer security and networks, high-performance computing and software engineering. Outstanding candidates in other areas will also be considered. Job duties include conducting research that results in refereed publications and external funding, teaching effectively at the graduate and undergraduate levels, supervising student research, and serving at the department, college, university, and professional levels.
2. One non-tenure track Senior Lecturer position to start on January 16, 2018. Review date is October 15, 2017. The candidate is expected to teach a variety of courses primarily at the undergraduate level and serve at the department, college,
and university levels. This non-tenureline, nine-month faculty position will have a contract term not to exceed five years, subject to annual reappointment review, and renewable upon expiration of the initial term. As a non-tenure line faculty member, the candidate is not expected to engage in research, external funding, or publications. However, collaborative participation with colleagues in such activities as well as service, curriculum initiatives, and conducting learning outcomes assessment, can be considered in the annual evaluation.

Consult the department's page at www. cs.txstate.edu/employment/faculty/ for required and preferred qualifications, application procedures, and information about the university and the department.

Texas State University is committed to an inclusive education and work environment that provides equal opportunity and access to all qualified persons. Texas State, to the extent not in conflict with federal or state law, prohibits discrimination or harassment on the basis of race, color, national origin, age, sex, religion, disability, veterans' status, sexual orientation, gender identity or expression. Texas State University is a member of The Texas State University System. Texas State University is an EOE.

## Tufts University

## Assistant Professor in Computer Engineering

The Department of Electrical and Computer Engineering at Tufts University invites applications for a tenure-track faculty position in Computer Engineering to begin in September 2018. We are seeking candidates at the rank of Assistant Professor, but exceptional candidates at the rank of Associate or Full Professor will also be considered. Candidates are sought primarily in the area of Computer Engineering or a closely related field with expertise in areas including, but not limited to, security, embedded and real-time systems, computer architecture, and computer systems. The successful candidate will join an active department that offers B.S., M.S., and Ph.D. programs, and thus must demonstrate excellence in teaching as well as the potential to develop an internationally recognized research program. The Electrical and Computer Engineering has grown significantly in the past fifteen years. Located in the Boston area, the department benefits from outstanding undergraduate and graduate students, collaborative faculty, and crossdisciplinary research opportunities. Tufts' School of Engineering (SOE) distinguishes itself by the interdisciplinary focus and integrative nature of its engineering education and research programs.

Full details see http://engineering.tufts. edu/ece/about/opportunities.htm.

## Professional Opportunities

The online application can be found at: https://apply.interfolio.com/43719

Review of applications will begin on December 15th 2017.

Tufts University is an Equal Opportunity/ Affirmative Action Employer. We are committed to increasing the diversity of our faculty and staff and fostering their success when hired. Members of underrepresented groups are welcome and strongly encouraged to apply.

If you are an applicant with a disability who is unable to use our online tools to search and apply for jobs, please contact us by calling Johny Laine in the Office of Equal Opportunity (OEO) at 617.627.3298 or at Johny.Laine@tufts.edu.

Applicants can learn more about requesting reasonable accommodations at http://oeo.tufts.edu.

## Tufts University

## Full-time Lecturer in Computer Science

The Department of Computer Science in the School of Engineering at Tufts University invites applications for a full-time Lecturer position to begin in Spring 2018.

The ideal Lecturer candidate will possess prior teaching experience, especially with undergraduate students, and have an engaging teaching style. The candidate must have a strong commitment to undergraduate teaching and mentoring.

A doctoral degree is preferred but not required.

The initial appointment will be for two years with the possibility of renewal.

Application materials should be submitted online through Interfolio at https://apply. interfolio.com/42628.

Review of applications will begin October 15,2017 and will continue until the position


# UNIVERSITY OF CALIFORNIA, SANTA CRUZ DEPARTMENT OF COMPUTER SCIENCE Assistant Professor, Distributed Systems 

The Department of Computer Science at the University of California, Santa Cruz invites applications for a tenure track (Assistant Professor) position in Distributed Systems. We seek outstanding applicants who have demonstrated research and teaching expertise in the areas of distributed systems, large-scale data processing, or storage systems.
SALARY: DOE
BASIC QUALIFICATIONS: A Ph.D. or equivalent foreign degree in Computer Science or other relevant field, expected to be completed by June 30, 2018; demonstrated record of research and teaching.
POSITION AVAILABLE: July 1, 2018 (with academic year beginning September 2018). All Ph.D. requirements must be completed by June 30, 2019 for employment beyond that date.
Forfullapplication instructions and position description, visit:http://apptrkr.com/1079647 Refer to Position \#JPF00476-18 in all correspondence.
CLOSING DATE: Review of applications will begin on December 4, 2017. To ensure full consideration, applications must be complete by this date.
The University of California is an Equal Opportunity/Affirmative Action Employer.
Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986. Certain UCSC positions funded by federal contracts or sub-contracts require the selected candidate to pass an E-Verify check. More information is available here or from the Academic Personnel Office (APO) at (831) 459-4300.
UCSC is a smoke \& tobacco-free campus.
If you need accommodation due to a disability, please contact the Academic Personnel Office at apo@ucsc.edu (831) 459-4300.

## Professional Opportunities

is filled. For more information about the department or the position, please visit http://engineering.tufts.edu/computer-science-positions. Inquiries should be emailed to cssearch@cs.tufts.edu. For assistance with Interfolio, please contact help@interfolio.com or call 877-997-8807.

Tufts University is an Equal Opportunity/ Affirmative Action Employer. We are committed to increasing the diversity of our faculty and staff and fostering their success when hired. Members of underrepresented groups are welcome and strongly encouraged to apply.

## Tufts University

Tenure-track Assistant Professor in Computer Science

The Department of Computer Science at Tufts University invites applications for multiple tenure-track faculty positions to begin in September 2018. We are looking for engaged and engaging researchers and teachers with a strong vision who can build and maintain a high-quality research program at Tufts and whose research will both connect with some of our current faculty and extend into new areas. We are seeking candidates at the rank of Assistant Professor but exceptional candidates at the rank of Associate or full Professor will also be considered.

We are especially interested in candidates with research in Artificial Intelligence/Machine Learning/Robotics, Security, and Systems for Data Science, where these areas are broadly construed. Exceptional candidates in other areas will be considered as well.

Please submit your application online through Interfolio at https://apply. interfolio.com/43666. You can contact help@interfolio.com with questions.

Review of applications will begin December 15,2017 and will continue until the position is filled. For more information about the department or the position, please visit our web page. Inquiries should be emailed to ttsearch@cs.tufts.edu.

## UMass Amherst

## Associate Professor - Information Access/HCl/Social Computing

The College of Information and Computer Sciences (CICS) at the University of Massachusetts Amherst (UMass Amherst) invites applications for a tenure-track faculty position at the Associate Professor level in the broad area of information retrieval, digital libraries, human-computer interaction, or social computing. Applicants must have a Ph.D. in Computer Science or a related area, and should show evidence of exceptional research promise. Review of applications will begin December l, 2017 and may continue until a suitable candidate pool has been identified. Applicants should submit a cover letter, a curriculum vitae, research statement, statement of teaching interests, and the names and contact information for three references, using the submission link specific to the position.

Applicants should submit a cover letter, a curriculum vitae, research statement, statement of teaching interests, and the
names and contact information for three references, using the submission link specific to the position.
Associate Professor iSchool
UMass Amherst is an Affirmative Action/ Equal Opportunity Employer of women, minorities, protected veterans, and individuals with disabilities and encourages applications from these and other protected group members.

## University at Buffalo

Professor of Empire Innovation
The Department of Computer Science and Engineering (CSE) at University at Buffalo invites candidates to apply for multiple faculty positions as Associate Professor or Full Professor to be known as Professor of Empire Innovation. Selected candidates will receive support through the SUNY Empire Innovation Program (EIP) which recognizes high caliber faculty with proven track records of externally funded research.

We invite prominent leaders in several foundational areas in artificial intelligence and robotic systems, including computer vision (including video analysis and 3D reconstruction), machine learning (including big data analytics and adversarial machine learning), natural language processing (audio-visual multimodal understanding), autonomous systems (such as driverless cars), human-robot collaboration (focusing on attack modeling, privacy preservation, and safety guarantees), knowledge representation and reasoning, and
cognitive science (computational linguistics, philosophy, and computer modeling of neural networks and brains).

We are particularly looking for candidates who can operate effectively in a diverse community of student and faculty and share our vision of helping all constituents reach their full potential. The Department of Computer Science and Engineering is housed in a new $\$ 75$ million building, and as a part of School of Engineering and Applied Sciences, the department offers both BA and BS degrees in Computer Science, a BS in Computer Engineering (accredited by ABET), a combined 5-year BS/MS program, a minor in Computer Science, and two joint programs (BA/MBA and Computational Physics) as well as MS and PhD programs. The department has over 40 tenured/tenure-track faculty, 7 teaching faculty, and approximately 1,000 undergraduate majors, 450 masters' students, and 160 PhD students. About twenty junior faculty have been hired since 2010, and we are continuing to expand. Two members of our faculty currently hold key university leadership positions and seven members of our faculty are IEEE and/or ACM Fellows. Our faculty members are actively involved in cutting-edge research and successful interdisciplinary programs and centers devoted to biometrics; bioinformatics; biomedical computing; computational and data science and engineering, document analysis and recognition; high performance computing; information assurance and cyber security; embedded, networked and distributed systems, and sustainable transportation.

In 2016, our annual research expenditure exceeded \$5 million and the total amount of new awards exceeded $\$ 12$ million.

The University at Buffalo (UB) is the largest and most comprehensive public university within the State of New York with approximately 20,000 undergraduate students and 10,000 graduate students. Recently established Centers of Excellence such as Sustainable Manufacturing and Advanced Robotic Technologies (SMART), RENEW and Global Health as well as ISTL and DoD's UTC Tier I Center on Transportation Informatics provide many opportunities for multidisciplinary research collaboration across the university.

Buffalo is the second largest city in New York State, and was rated the 10th best place to raise a family in America by Forbes magazine in 2010 due to its short commutes and affordability. Located in scenic Western New York, Buffalo is near the world-famous Niagara Falls, the Finger Lakes, and the Niagara Wine Trail. The city is renowned for its architecture and features excellent museums, dining, cultural attractions, and several professional sports teams, a revitalized downtown waterfront as well as a growing local tech and startup community. Buffalo is home to Z80, a start-up incubator, and 43 North, the world's largest business plan competition.

To apply please go to: https://www.ubjobs. buffalo.edu/postings/ll385

## University of Alabama

## Computer Science Faculty Position

The Department of Computer Science at the University of Alabama invites applications for a tenure-track faculty position at the Assistant or Associate level to begin either January or August 2018. Candidates will be expected to engage with faculty and researchers in the Alabama Water Institute (http://awi.ua.edu). Research areas of interest include, but are not limited to, management and manipulation of large sensor data sets, real-time (and near real-time) data processing, resource constrained data collection and analysis, high performance computing, big data, and robotics command-and-control.

Located in Tuscaloosa, Alabama, the University of Alabama enrolls over 37,000 students and is the capstone of higher education in the State. Housed in the College of Engineering, the Computer Science Department has 24 faculty members (16 tenured/tenure-track faculty), roughly 700 undergraduates and approximately 50 graduate students. The Department has produced 33 doctoral graduates in the last five years and is funded by agencies such as NSF, Google, Departments of Education and Commerce, various Defense agencies, multiple State agencies, and other sponsors. In 2013, the College completed construction of a $\$ 300 \mathrm{M}$ Shelby Engineering and Science Complex.

Applicants should apply online at http://facultyjobs.ua.edu requisition \#0810845. Applicants must have an

## Professional Opportunities

earned doctorate (Ph.D.) in computer science or a closely related field. The application package should include a cover letter, curriculum vitae, and the names of three references. The University of Alabama is an equal opportunity/ affirmative action employer. Women and minority applicants are particularly encouraged to apply.

## University of Alberta

## SCI Computing Science

Tenure Track Position in Artificial Intelligence

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, Planning/Heuristic Search, and Algorithmic Game Theory, will be considered for this position.

According to csrankings.org the department is ranked \#l in Canada and averaged \#3 in the world in terms of number of publications at top Al 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):

## Full curriculum vitae

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 $\sim 5$ years after initial appointment, and (3) describe how the candidate will interact, collaborate with and complement other researchers at the University of Alberta

1-page teaching statement including their experience and interests
most significant peer-reviewed published contributions 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, e.g., Canada Research Chair (CRC), in the Faculty of Science, 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/9185, and complete applications and all reference letters must be received by Oct. 18th, 2017.

For further information please email the Department Chair's Executive Assistant at cs.ea@ualberta.ca (please use "Al 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: http://www.careers.ualberta.ca/ Competition/AI05033663/

## Professional Opportunities

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 <br> California, Riverside

## Assistant Teaching Professor

The Department of Computer Science and Engineering (CSE) at the University of California, Riverside invites applications for an Assistant Teaching Professor position beginning in January 2018. At UCR, teaching professors are responsible mainly for undergraduate instruction and curriculum development. Successful candidates will need to exhibit dedication to teaching and appropriate pedagogical knowledge and skills. Priority will be given to candidates with expertise and prior experience in teaching courses on data structures, software engineering, discrete mathematics, and algorithms, but highly qualified candidates with background in other areas will also be given consideration. Besides teaching, teaching professors are
also expected to be actively engaged in development of undergraduate curricula, pedagogical innovation, TA training, program accreditation, student advising, and scholarly activity in the area of computer science education.

An assistant teaching professor appointment is similar to a regular tenuretrack assistant professor appointment and follows a parallel track, including regular, rigorous performance reviews and a tenure process that, if successful, leads to a tenured appointment.

## A Ph.D. in Computer Science or a

 related field is required at the time of employment. Salary will be competitive and commensurate with qualifications and experience. Full consideration will be given to applications received by October 30, 2017. The search will continue until the position is filled. To apply, please register through the weblink at https://aprecruit.ucr.edu/apply/ JPF00798 or at http://www.engr.ucr.edu/ about/employment.html. Inquiries should be directed to Isoesearch@cs.ucr.edu.UCR is a world-class research university with an exceptionally diverse undergraduate student body. Its mission is explicitly linked to providing routes to educational success for underrepresented and first-generation college students. A commitment to this mission is a preferred qualification.

The University of California, Riverside is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual
orientation, gender identity, national origin, age, disability, protected veteran status, or any other characteristic protected by law.

EEO/AA/ADA/Vets Employer

## University of California, Riverside

Postdoctoral Research Associate

Applications are invited for a Research Associate position on binary code analysis and transformation. Candidates must have a PhD degree in computer science or a related field, and must have strong programming skills and excellent writing and communication skills. Research experiences in program analysis, software testing and verification, compilers, and reverse engineering are preferred. Interested applicants should please contact Prof. Heng Yin (heng@cs.ucr.edu) for questions.

To apply, please include a cover letter, CV, and research statement, and email your application to heng@cs.ucr.edu.

The review of applications will start immediately, and continue until the position is filled.

## Professional Opportunities

## University of <br> Central Arkansas

## Assistant/Associate Professor of Computer Engineering and Cybersecurity (two positions)

The Department of Computer Science at the University of Central Arkansas is seeking exceptional candidates for two tenure-track Assistant/Associate Professor positions, one in Computer Engineering and the other in Cybersecurity, both beginning in August 2018. Currently, the department has 12 fulltime faculty members and offers an ABET accredited BS program in Computer Science and an MS program in Applied Computing

Each position requires a doctorate degree in Electrical Engineering, Computer Engineering, Computer Science, Cyber security or a related discipline. For the Computer Engineering position, all areas of Computer Engineering will be considered; whereas for the Cybersecurity, Only candidates with expertise in Cybersecurity will be considered. Duties include teaching the undergraduate and graduate levels, research, and professional service.

Applicants should submit Research statement, C.V., cover letter and teaching statement required. Please provide contact information for three professional references that can provide a letter of reference for you via https:// jobs.uca.edu (Position numbers 173092 and 173093). Review of applications will begin on January 11, 2018 and will continue until the position is filled. For questions, contact the department
chair at ecelebi@uca.edu. Additional information about the department is available at https://uca.edu/ computerscience. UCA is an EO/AA Employer.

UCA is located in Conway, Arkansas, a thriving city of approximately 60,000 in central Arkansas. Conway is home to several major industries, two private colleges, an excellent public school system, and strong private K12 schools. Residents enjoy easy access to both a large urban center (Little Rock is 30 minutes away via $1-40$ ) and pristine wildlife areas such as the Buffalo National River, and the Ozark and Ouachita Mountains.

## University of Chicago

## Assistant Professor/Associate Professor/ Professor, Computer Science

The Department of Computer Science at the University of Chicago invites applications from qualified candidates for faculty positions at the ranks of Assistant Professor, Associate Professor, and Professor. The University of Chicago has embarked on an ambitious, multiyear effort to significantly expand its computing and data science activities. Candidates with research interests in all areas of computer science will be considered. However, applications are especially encouraged in the areas of Al and Machine Learning, Robotics, Data Analytics, Human-Computer Interaction, and Visual Computing.

Candidates must have demonstrated excellence in research and a strong commitment to teaching. Completion of all requirements for a Ph.D. in Computer Science or a related field is required at the time of appointment. Candidates for Associate Professor and Professor positions must have demonstrated leadership in their field, have established an outstanding independent research program and have a record of excellence in teaching and student mentorship.

Applications must be submitted through the University's Academic Jobs website.

To apply for Assistant Professor, go to http://tinyurl.com/ya46ybql

To apply for Associate Professor, go to http://tinyurl.com/ydgx33eu

To apply for Professor, go to http://tinyurl.com/yaqpar49

To be considered as an applicant, the following materials are required:

- cover letter
- curriculum vitae including a list of publications
- statement describing past and current research accomplishments and outlining future research plans
- description of teaching philosophy and experience
- the names of at least three references

Reference letter submission information will be provided during the application process.

## Professional Opportunities

Applications received by December 15, 2017 will be given priority consideration.

The University of Chicago has the highest standards for scholarship and faculty quality, is dedicated to fundamental research, and encourages collaboration across disciplines. We encourage connections with researchers across campus in such areas as bioinformatics, mathematics, molecular engineering, natural language processing, statistics, public policy, and social science to mention just a few.

The Department of Computer Science (cs.uchicago.edu) is the hub of a large, diverse computing community of two hundred researchers focused on advancing foundations of computing and driving its most advanced applications. The larger computing and data science community at the University of Chicago includes the Department of Statistics, the Computation Institute, the Toyota Technological Institute at Chicago (TTIC), the Polsky Center for Entrepreneurship and Innovation, the Mansueto Institute for Urban Innovation and the Argonne National Laboratory.

The Chicago metropolitan area provides a diverse and exciting environment. The local economy is vigorous, with international stature in banking, trade, commerce, manufacturing, and transportation, while the cultural scene includes diverse cultures, vibrant theater, world-renowned symphony, opera, jazz, and blues. The University is located in Hyde Park, a Chicago neighborhood on the Lake Michigan shore just a few minutes from downtown.

The University of Chicago is an Affirmative Action/Equal Opportunity/Disabled/Veterans Employer and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, status as an individual with a disability, protected veteran status, genetic information, or other protected classes under the law. For additional information please see the University's Notice of Nondiscrimination at http://www. uchicago.edu/about/non_discrimination_ statement/. Job seekers in need of a reasonable accommodation to complete the application process should call 773-702-0287 or email ACOppAdministrator@ uchicago.edu with their request.

## University of Georgia

## Two Tenure-track Assistant Professor positions in Computer Science

The Department of Computer Science at the University of Georgia invites applications for two tenure-track assistant professor positions, starting August 2018. Applicants should hold a PhD in Computer Science or closely related field, have a strong research record, and be committed to excellence in both research and teaching. We are especially interested in hiring a candidate with a research background in Hardware Security and another one with a research background in Data Science and Machine Learning.

We currently have four successful faculty members working in the Cybersecurity
and privacy areas, with focus on Systems, Network Security and Privacy. The ideal candidate in Hardware Security will complement and further strengthen our department's research and education efforts in Computer Security and Privacy.

A number of the Computer Science faculty are working in the data science and machine learning areas. The ideal candidate in Data Science and Machine Learning will complement and further strengthen our department's research and education in Data Analytics, Data Intensive Computing, and Machine Learning.

Both positions offer a competitive salary and generous startup package.

UGA has established an Institute for Cyber Security and Privacy (ICSP), which is housed in the Computer Science Department. The University of Georgia has been designated as a National Center of Academic Excellence in Cyber Defense Research (CAE-R) through academic year 2022. Additional information about the ICSP can be found at the following link: http://cybersecurity.uga.edu/.

Computer Science is a growing and congenial department of 27 faculty within the Franklin College of Arts and Sciences. The department has 1065 undergraduate and over 175 graduate students and offers the B.S., M.S., and Ph.D. degrees in CS. The teaching load allows for substantial concentration on research. In addition to the areas in which we are recruiting, our faculty cover a broad range of research interests, including

## Professional Opportunities

brain mapping, distributed information systems, real-time systems, databases, vision and image processing, theory, algorithms, bioinformatics and bio-imaging, simulations, computational science, parallel and distributed computing, semantic web, robotics, and artificial intelligence. Please see http://www.cs.uga.edu for more information about the Department.

The University of Georgia (http://uga.edu), founded in 1785, is the oldest land-grant university in the nation and the largest university in Georgia (exploregeorgia.com), with a student body of over 36,000. It is located in Athens (http://www.visitathensga. com// a charming and historic university town of about 100,000, approximately 65 miles from Atlanta, with mild winters and warm summers. The University boasts a major Performing Arts Center and has one of the largest student athletic recreation facilities in the US. It has been consistently ranked among the top 20 public universities by U.S. News and World Report.

To apply for hardware security, please go to http://facultyjobs.uga.edu/postings/2790

To apply for Data Science and Machine Learning, please go to http://facultyjobs. uga.edu/postings/2785

Please upload a cover letter, curriculum vitae, and short statements of research interests and teaching philosophy. Please provide contact information (email) for three references.

Review of candidates will begin on December 01,2017 and will continue until the positions are filled.

The Franklin College of Arts and Sciences, its many units, and the University of Georgia are committed to increasing the diversity of its faculty and students, and sustaining a work and learning environment that is inclusive. Women, minorities, protected veterans and individuals with disability are encouraged to apply. The University of Georgia is an EOO/AA institution, and does not discriminate based on race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or protected veteran status. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, gender identity, sexual orientation or protected veteran status.

## University of Illinois at Urbana-Champaign

Head and Professor<br>Department of Computer Science

The University of Illinois at UrbanaChampaign seeks a highly accomplished scholar and strategic leader as Head of the Department of Computer Science (CS). The new Head will lead a department that has continuously advanced the forefront of computing research and innovation since its inception, and whose faculty and alumni pioneered the modern computing era. The new Head will be uniquely positioned to build on the considerable strength and illustrious history of the department to lead the next chapter of the digital revolution.

More details about the department can be found at http://cs.illinois.edu.

For a complete overview of this position, please visit http://cs.illinois.edu/about-us/faculty-positions. To ensure full consideration, applications should be received by November 10, 2017, but applications will be accepted until the position is filled.

Nominations and applications, including cover letter, curriculum vita, and the names/ contact information for three references, should be submitted electronically to IllinoisCS@wittkieffer.com. Calls can be directed to 630-575-6131.

The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

Illinois is an EEO Employer/Vet/Disabled www.inclusiveillinois.illinois.edu

## University of Illinois at Urbana-Champaign

Faculty Positions in Bioelectronics, Biocomputation, and Health

The Department of Electrical and Computer Engineering (ECE) at the University of Illinois at Urbana-Champaign invites applications for faculty positions in all areas and at all levels in bioinformatics, computational and systems biology, bioimaging, and bioelectronics, and biophotonics broadly defined, with particular emphasis on genomic, proteomic and metabolic data analytics and emerging data acquisition, sensing and computing technologies.

## Professional Opportunities

Areas of interest include, but are not limited to complex analysis and decision science for biological data processing; new DNA sequencing techniques, genome rearrangement problems and variant calling; machine learning approaches to biological problems including biomedical imaging and gene regulatory, metabolic and proteinprotein interaction networks modeling and inference; disease diagnostics; cell/ tissue analysis; iomolecule-semiconductor interaction, detection by nano-electronic membranes; multi-scale biological systems modeling; biological data visualization and compression; biomedical imaging including MRI and other modalities; and computing systems for computational biology from hardware to software algorithms.

Qualified senior candidates may also be considered for tenured Full Professor positions as part of the Grainger Engineering Breakthroughs Initiative (graingerinitiative. engineering.illinois.edu), which is backed by a $\$ 100$-million gift from the Grainger Foundation. The ECE Department also supports and encourages faculty involvement with the Nation's first engineering-based College of Medicine that is opening on campus in the fall of 2018. The plans are to facilitate transition from engineering breakthroughs into translational medical practices. ECE ILLINOIS is in a period of intense demand and growth, serving over 3000 students and averaging 7 new tenuretrack faculty hires per year in recent years. It is housed in its new 235,000 sq. ft. net-zero energy design building, which is a major campus addition with maximum space and minimal carbon footprint.

Please visit http://jobs.illinois.edu to view the complete position announcement and application instructions. Full consideration will be given to applications received by November 15, 2017, but applications will continue to be accepted until all positions are filled.

Illinois is an EEO Employer/Vet/Disabled: www.inclusiveillinois.illinois.edu.

The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

## University of Illinois at Urbana-Champaign

## Faculty Positions at all areas and levels in Computing

The Department of Electrical and Computer Engineering (ECE ILLINOIS) at the University of Illinois at Urbana-Champaign invites applications for faculty positions at all areas and levels in computing, broadly defined, with particular emphasis on cybersecurity and reliability; embedded systems, cyberphysical systems, and the internet of things; networked and distributed computing; data-centric computing systems and storage; quantum computing; robotics and machine vision; machine learning and Al; and bio computation, and health, among other areas. Applications are encouraged from candidates whose research programs specialize in core as well as interdisciplinary areas of electrical and computer engineering. From the transistor and the first computer implementation based on von Neumann's
architecture to the Blue Waters petascale computer (the fastest computer on any university campus), ECE ILLINOIS has always been at the forefront of computing research and innovation. ECE ILLINOIS is in a period of intense demand and growth, serving over 3000 students and averaging 7 new tenuretrack faculty hires per year in recent years. It is housed in its new 235,000 sq. ft. net-zero energy design building, which is a major campus addition with maximum space and minimal carbon footprint.

Qualified senior candidates may also be considered for tenured full Professor positions as part of the Grainger Engineering Breakthroughs Initiative (graingerinitiative.engineering.illinois. edu), which is backed by a $\$ 100$-million gift from the Grainger Foundation.

Please visit http://jobs.illinois.edu to view the complete position announcement and application instructions. Full consideration will be given to applications received by November 15, 2017, but applications will continue to be accepted until all positions are filled.

Illinois is an EEO Employer/Vet/Disabled www.inclusiveillinois.illinois.edu.

The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

## Professional Opportunities

## University of Kansas

Electrical Engineering and<br>Computer Science<br>Four Faculty Positions

The University of Kansas (KU) Department of Electrical Engineering and Computer Science seeks individuals for four tenure track positions in the disciplines of electrical engineering, computer engineering, or computer science. Our department values diversity in pedagogy, in the curriculum, in outreach to students, and in research. Applicants are expected to have an earned doctorate, or equivalent in electrical engineering, computer science, computer engineering, or related fields at the time of appointment. The successful candidate must be eligible to work in the U.S. by the time of appointment. The ability to possess and maintain a security clearance issued by the U.S. Government is preferred. Applicants pursuing research in areas that are synergistic with departmental strengths are preferred. The following positions are open at the assistant professor (tenure-track) level, with experience in:

## Metamaterials \& Nano-photonics -

 Applicants are sought in the areas of nano-photonics; nano-electronics and energy-efficient electronics; next generation microwave/mm-wave/THz devices; 2D materials; advanced optical sources; photo-detectors and sensors; and reconfigurable/time-varying materials. Applicants are sought who apply their expertise to functional devices andsystems including, e.g., radar/remote sensing and communications topics for electronic defense, commercial, and scientific applications. http://employment. ku.edu/academic/97I7BR

Communications Systems - Applicants are sought in the areas of 5 G and machine type communications (MTC) technologies, including but not limited to advanced interference cancellation, massive MIMO; array processing, and adaptive beamforming technologies for secure, scalable; and power/spectral efficient systems. Applicants are sought who apply their expertise to system implementations, e.g., secure communications systems; communications in challenged environments, e.g., civilian disasters, or military (anti-jam); covert/communication/ radar/satellite spectrum sharing. http:// employment.ku.edu/academic/9718BR

Computer Engineering - Applicants across all areas of computer engineering are encouraged to apply, including but not limited to VLSI design, digital system design, and embedded systems. Applicants are sought who apply their expertise to both core and emerging applications of computer engineering, e.g., secure, high-assurance, and resilient computing systems; the design of application specific systems; neuromorphic computing; and hardware implementation of internet of things (IoT). http://employment.ku.edu/ academic/972IBR

Computer Science - Applicants across all areas of theoretical computer science are encouraged to apply, including but not
limited to, algorithms, graph/decision/game theory, complexity, constraint satisfaction, algebra, and decidability, and artificial intelligence. Applicants are sought who apply their expertise to both core and emerging applications of computer science, e.g., cybersecurity, high- assurance systems, resiliency, data science, scientific computing, and computational geometry, smart and connected communities.

## http://employment.ku.edu/ academic/97I9BR

Exceptional applicants in other closely related areas to the above topics may be considered.

The KU School of Engineering is rapidly expanding with research and teaching facilities. KU is focused on four key campus-wide strategic initiatives. For more information, see http://www. provost.ku.edu/planning/themes/. Successful candidates should describe in their application materials how their work addresses one or more of KU's strategic initiatives.

Applications should be submitted at http://employment.ku.edu/academicjobs. Applications should include a letter of application, curriculum vita, a statement of research interests and plans, a statement of teaching interests and plans including efforts to diversify the field of engineering, and contact information for three references. Applications will be reviewed beginning October 15, 2017 and will be accepted until the position is filled. The appointment will be effective as negotiated. Questions can

## Professional Opportunities

be sent to: EECS_Search@eecs.ku.edu. KU is an EO/AAE. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex (including pregnancy), age, national origin, disability, genetic information or protected Veteran status.

## University of Massachusetts Amherst

## Assistant/Associate Professor Data Science

The College of Information and Computer Sciences at the University of Massachusetts Amherst invites applications for multiple tenure-track faculty positions at the Assistant/Associate Professor level in Data Science (DS). Applicants must have a Ph.D. in Computer Science or a related area, and should show evidence of exceptional research promise. Review of applications will begin on September 28, 2017 for consideration during the fall 2017/winter 2018 hiring period.

All applicants should submit a cover letter, a CV, research statement, statement of teaching interests, the names and contact info for references, and links to research papers using the submission link specific to the position. Assistant/Associate Professor

The University of Massachusetts Amherst is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans, and individuals with disabilities and encourages applications from these and other protected group members.

## University of Massachusetts Lowell

Tenure-Track Assistant Professors Computer Science

The Computer Science Department invites applications for four tenure-track, assistant professor faculty positions to start in September 2018 (an earlier starting date might be considered).

Minimum Qualifications (Required):

- PhD in computer science or a closely related discipline


## Preferred Qualifications:

- Experience in Computer Vision, Cybersecurity, Data Science, Machine Learning, and/or Robotics
- Other major computer science areas will be considered

Candidates interested in establishing collaborations with faculty in physics, engineering, health, and other areas are encouraged to apply.

## Apply:

For the full description, and to apply please visit: http://explorejobs.uml.edu/ lowell/en-us/job/492558/tenuretrack-assistant-professor-computer-science-multiple-positions

Review of applications will begin immediately and continue until the position is filled. However, the position may close once an adequate number of qualified applications are received.

Applications received by December 15, 2017 will receive full consideration.

The University of Massachusetts Lowell is an Equal Opportunity/Affirmative Action, Title IX employer. All qualified applicants will receive consideration for employment without regard to race, sex, color, religion, national origin, ancestry, age over 40, protected veteran status, disability, sexual orientation, gender identity/expression, marital status, or other protected class.

## University of Michigan

## Computer Science and Engineering Faculty Positions

The University of Michigan Computer Science and Engineering (CSE) Division expects strong growth in the coming years and invites applications for multiple tenure-track positions at all levels. These positions include, but are not limited to, cross-disciplinary areas and an endowed professorship (the Fischer Chair) in theoretical computer science. Exceptional candidates from all areas of computer science and computer engineering will be considered. Qualifications include an outstanding academic record, a doctorate or equivalent in computer science or computer engineering, and a strong commitment to teaching and research. The college is especially interested in candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community.

## Professional Opportunities

The University of Michigan is one of the world's leading research universities with annual research funding of well over \$1 billion. It consists of highlyranked departments and colleges across engineering, sciences, medicine, law, business, and the arts. More than a quarter of CSE faculty have sponsored collaborations with faculty in other units. The CSE Division is vibrant and innovative, with over 50 world-class faculty members, over 300 graduate students, several Research Centers, and a large and illustrious network of alumni. Ann Arbor is well known as one of the best college towns in the country. The University of Michigan has a strong dual-career assistance program.

We encourage candidates to apply as soon as possible. For best consideration for Fall 2018, please apply by December 1, 2017. Positions remain open until filled and applications can be submitted throughout the year.

For more details on these positions and to apply, please visit the Application Web Page: https://www.eecs.umich.edu/eecs/ etc/csejobs/

The University of Michigan is a NonDiscriminatory/Affirmative Action Employer.

## University of Notre Dame

Multiple Tenure-Track Faculty Positions

The Department of Computer Science and Engineering at the University of Notre Dame invites applications for multiple tenure-track faculty positions at all ranks, with one position specifically in circuits, architecture, or related areas. We seek to attract, develop, and retain excellent faculty members with strong records and future promise. The Department is especially interested in candidates who will contribute to the diversity and excellence of the University's academic community through their research, teaching, and service.

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

Applicants must submit a CV, a teaching statement, a research statement, and contact information for three professional references at http://apply.interfolio.com/4I330. To guarantee full consideration, applications must be received by December 1, 2017, however, review of applications will continue until the positions have been filled.

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

## University of Pennsylvania

CIS Director of Data Science

The University of Pennsylvania, Department of Computer and Information Science invites applicants for a Director of Data Science within our graduate program. The department seeks individuals with experience in Data Science and computing, and exceptional promise for, or a proven record of, excellence in teaching. Applicants should have a Ph.D. degree and/or significant industry experience.

The position entails teaching courses in our new Master of Science and Engineering in Data Science program; collaborating on curriculum development; fostering, facilitating, and managing data science practicum projects; and overseeing marketing, admissions and advising. The target start date is July 1,2018 . Applications will be evaluated on a rolling basis until the position is filled.

The position is as Practice Professor (Assistant, Associate or Full), a non-tenure track faculty position with successive appointments dependent upon review. Successful applicants will find Penn to be a stimulating, interdisciplinary environment conducive to professional growth in both teaching and research.

Apply for this position online at: https:// facultysearches.provost.upenn.edu/ postings/l227

## Professional Opportunities

## University of Portland

Assistant Professor of Computer Science
The Shiley School of Engineering at the University of Portland is seeks to fill two tenure-track computer science faculty positions, to start August 2018.

More information about the positions, including a link for applying, may be found at: https://up.hiretouch.com/ job-details?jobID=43427\&job=tenure-track-assistant-professor-of-computer-science-two-positions.

## The University of Richmond

Assistant Professor of Computer Science

The University of Richmond invites applications for a tenure-track Assistant Professor position in Computer Science to begin August 2018. Strong candidates at the level of associate or full will be considered.

For additional information and to apply, please visit: https://richmond. csod.com/ats/careersite/JobDetails. aspx?site=l\&id=1349

## University of Rochester

Assistant Professor
Tenure-Track Faculty (CSC, 2017)
Department of Computer Science

Faculty Positions in Computer Science
The Computer Science Department at the University of Rochester seeks applicants for two tenure-track positions. Outstanding candidates will be considered in any area of computer science and at any level of seniority. We are particularly eager to grow our strength in human-computer interaction and in the theory and practice of security and privacy.

Candidates must have (or be about to receive) a doctorate in computer science or a related discipline. Applications should be submitted online at https://www.rochester. edu/faculty-recruiting/login no later than January 1,2018 , for full consideration; submissions beyond this date risk being overlooked due to limited interview slots.

The Department of Computer Science (https://www.cs.rochester.edu) has a distinguished history of research in artificial intelligence, HCl , systems, and theory. We nurture a highly collaborative and interdisciplinary culture, with exceptionally strong external funding and with active ties to numerous allied departments, including brain and cognitive science, linguistics, biomedical engineering, electrical and computer engineering, and several departments in the medical center. Recent faculty hires have received a host of national honors, including the NSF CAREER award, the MIT TR35 award, honorable mention in the ACM dissertation competition, multiple Google research awards, and best paper designations at top-tier conferences. In 2015 we were one of only two CS departments nationwide to secure three NSF CRII awards for junior faculty.

The department is deeply committed to building a more diverse and representative faculty, and strongly encourages applications from groups underrepresented in higher education. We have a vibrant Women in Computing community, and are a charter member of the ABI/HMC BRAID Initiative. With funding from the NSF, the CRA, and major industrial sponsors, BRAID works to increase diversity and inclusivity in the undergraduate program and to rigorously evaluate factors that contribute to change. In 2017, women constituted 33\% of our BA/BS graduates, and we are actively working to improve the environment for other underrepresented groups. The University of Rochester is a private, Tier

## Professional Opportunities

I research institution with approximately 5,000 undergraduates and a comparable number of graduate students. It has recently committed \$50M to the multidisciplinary Goergen Institute for Data Science (GIDS), of which Computer Science is the leading departmental member - and with which it shares a newly constructed state-of-theart facility. Ongoing hiring in GIDS provides exciting opportunities for collaboration between computing and other disciplines.

Anchoring the Finger Lakes region of western New York State, the greater Rochester area is home to over a million people, and offers unsurpassed quality of life, with a thriving arts scene, outstanding public schools, affordable housing, and a huge range of cultural and recreational opportunities. Traditionally strong in optics research and manufacturing, the area was recently selected by the Department of Defense as the hub of a $\$ 600 \mathrm{M}$ Integrated Photonics Institute for Manufacturing Innovation.

The University of Rochester is an Equal Opportunity Employer:

EOE Minorities / Females / Protected Veterans / Disabled

The University of Rochester, an Equal Opportunity Employer, has a strong commitment to diversity and actively encourages applications from candidates from groups underrepresented in higher education.

EOE Minorities/Females/Protected Veterans/Disabled

## 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 subdisciplines 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/l3009 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 Beaufort

Assistant Professor of Computational Science, Tenure Track

The Department of Mathematics and Computational Science at the University of South Carolina Beaufort (www.uscb. edu/cs) invites applications for a tenuretrack faculty at the rank of Assistant

Professor to begin spring 2018. Candidates are expected to have an earned doctorate in either (a) Computer (or Computational) Science with significant training in Materials Engineering, or (b) Materials Engineering with significant training in Computer/ Computational Science at the time of employment. Successful candidates will be able to teach undergraduate and graduate courses in Computational Science that focus on data analysis, modeling and simulation, and mechanics and materials. Preferred candidates are expected to become strong participants in multi-disciplinary research teams formed by researchers from universities across the state.

Applicants must submit on-line a cover letter, curriculum vitae, statements of research interest and teaching philosophy, and copies of graduate transcripts. Three letters of recommendation (with at least one letter addressing teaching) must be received no later than Sept. 29, 2017.

The quicklink for the posting is http:// uscjobs.sc.edu/postings/18103

The University of South Carolina does not discriminate in educational or employment opportunities on the basis of race, color, religion, national origin, sex, sexual orientation, gender, age, disability, veteran status or genetics.

## Professional Opportunities

## University of Toronto Mississauga

Assistant Professor, Computer<br>Science - Robotics

The Department of Mathematical and Computational Sciences at the University of Toronto Mississauga (UTM) invites applications for up to two tenure-stream positions at the rank of Assistant Professor in the area of Robotics, to begin on July 1, 2018.

The University of Toronto is an international leader in computer science research and education. UTM is part of the tri-campus University of Toronto system, and the successful candidate(s) will hold their appointment at the Department of Mathematical and Computational Sciences at UTM and will also be a member of the tri-campus Graduate Department of Computer Science. UTM is embarking on an ambitious expansion to its computer science program over the next several years and in the near term is focused on building a research cluster in the area of robotics. The successful candidate(s) will form the nucleus of this robotics cluster, and we anticipate additional hires in the area in the next few years. The candidate(s) will be expected to pursue innovative research at the highest international level; to establish a strong, externally funded independent research program; to have a strong commitment to undergraduate and graduate teaching; and to contribute to the enrichment of both undergraduate and graduate programs
in the department and in particular to establish a research presence in robotics with graduate students at the UTM campus. The position(s) come with substantial startup funding for the cluster, including a significant new laboratory space allocation, resulting in a unique opportunity for driven individuals with the leadership skills to build a substantial new research enterprise in a thriving metropolitan area.

We are interested in candidates in all areas of computer science that touch upon robotics in the broadest possible sense. We are especially interested in exceptional candidates who transcend traditional computing research topics and complement our existing strengths.

Candidates must have a Ph.D. in computer science or robotics or a related field by the date of appointment or shortly thereafter. Excellence of excellence in research and teaching is required. Excellence in research will be evidenced primarily by publications in top ranked field relevant journals, or a research pipeline that is at high international levels, awards and accolades, presentations at significant conferences, and strong reference letters by referees of top international stature. Teaching excellence will be demonstrated by awards and accolades, teaching accomplishments, teaching statement, as well as strong endorsements from referees.

Salaries will be commensurate with qualifications and experience, and is competitive with our North American peers.

Applicants should apply online through AcademicJobsOnline, https:// academicjobsonline.org/ajo/jobs/9473 and include a curriculum vitae, a list of publications, and research and teaching statements. Applicants should also arrange to have at least three letters of reference (on letterhead and signed) uploaded through AcademicJobsOnline directly by the writers.

Review of applications will begin after November 30, 2017 but the position will remain open until filled.

For more information about the Department of Mathematical and Computational Sciences at the University of Toronto, Mississauga see our website at https://www.utm.utoronto.ca/math-cs-stats/. Information about the tricampus Graduate Department of Computer Science can be found at www.cs.toronto.edu. For additional enquiries, please contact us at recruit@cs.toronto.edu.

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

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

## Professional Opportunities

## University of Toronto Mississauga

Associate Professor, Computer<br>Science - Robotics

The Department of Mathematical and Computational Sciences at the University of Toronto Mississauga (UTM) invites applications for a tenure-stream position at the rank of Associate Professor in the area of Robotics, to begin on July l, 2018.

The University of Toronto is an international leader in computer science research and education. UTM is part of the tri-campus University of Toronto system, and the successful candidate will hold their appointment at the Department of Mathematical and Computational Sciences at UTM and will also be a member of the tri-campus Graduate Department of Computer Science. UTM is embarking on an ambitious expansion to its computer science program over the next several years and in the near term is focused on building a research cluster in the area of robotics. The successful candidate will be expected to play a leadership role in building the cluster, and we anticipate additional hires in the area in the next few years. The candidate is expected to have an established innovative research record at the highest international level which they will build upon in this new position; to have demonstrated the ability to establish a strong, externally funded independent research program; to have a strong commitment to undergraduate and graduate teaching; and to contribute
to the enrichment of both undergraduate and graduate programs in the department and in particular to lead the establishment of a research presence in robotics with graduate students at the UTM campus. The position comes with substantial startup funding for the cluster, including a significant new laboratory space allocation, resulting in a unique opportunity for driven individuals with the leadership skills to build a substantial new research enterprise in a thriving metropolitan area.

We are interested in candidates in all areas of computer science that touch upon robotics in the broadest possible sense. We are especially interested in exceptional candidates who transcend traditional computing research topics and complement our existing strengths.

Candidates must have a Ph.D. in computer science or robotics or a related field, and have at least six years of academic or industry research experience post PhD. Evidence of excellence in research and teaching at the highest international level is required, as well as an excellent reputation and an established record of innovative research in the field. Excellence in research will be evidenced primarily by sustained contributions and publications in top ranked field relevant journals, awards and accolades, presentations at significant conferences, and strong reference letters by referees of top international stature. Teaching excellence will be demonstrated by awards and
accolades, teaching accomplishments, teaching statement, as well as strong endorsements from referees.

Salaries will be commensurate with qualifications and experience, and is competitive with our North American peers.

Applicants should apply online through AcademicJobsOnline, https:// academicjobsonline.org/ajo/jobs/9479 and include a curriculum vitae, a list of publications, and research and teaching statements. Applicants should also arrange to have at least three letters of reference (on letterhead and signed) uploaded through AcademicJobsOnline directly by the writers.

Review of applications will begin after November 30, 2017 but the position will remain open until filled.

For more information about the Department of Mathematical and Computational Sciences at the University of Toronto Mississauga see our website at https://www.utm.utoronto.ca/math-csstats/. Information about the tricampus Graduate Department of Computer Science can be found at www.cs.toronto.edu. For additional enquiries, please contact us at recruit@cs.toronto.edu.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons,

## Professional Opportunities

and others who may contribute to the further diversification of ideas.

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

## United States Naval Academy

Assistant Professor for<br>Computer Engineering

The Electrical and Computer Engineering Department at the United States Naval Academy is seeking applicants to fill a tenuretrack position at the Assistant Professor level in Computer Engineering. Applicants with teaching and research interests in all areas of computer engineering will be considered, including but not limited to cyber security, operating systems, compilers, parallel computing, distributed systems, storage systems, and embedded systems.

For more information about this position and how to apply please visit the USNA position announcement at https://www.usna.edu/ HRO/jobinfo/ASSTPROF-CE2017.php

## Utah State University

## Assistant Professor

The CS department at USU is seeking applications to fill several Assistant Professor faculty positions, starting Spring or Fall Semester 2018, to strengthen its focus in Computer Security,

Human Computer Interaction, Software Engineering, and Data Science. Application reviews will begin in October 2017.

The link to apply is https://usu.hiretouch. com/job-details?jobid=2805

As an affirmative action/equal opportunity employer, USU is dedicated to recruiting stellar candidates from a diverse pool, including women, minorities, veterans, and persons with disabilities. USU is sensitive to the needs of dual-career applicants and offers competitive salaries with outstanding medical, retirement, and professional benefits.

## Vanderbilt University

Tenured/Tenure-Track (T/TK) Faculty Position in Computer Science

THE DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (EECS) AT VANDERBILT UNIVERSITY is seeking candidates for a tenured/tenure-track (T/ TK) faculty position in computer science. We prefer to fill the position at the assistant professor rank, but candidates of all ranks will be considered. Successful candidates are expected to teach at undergraduate and graduate levels and develop and grow vigorous programs of externally funded research. The areas of focus for this search are Big Data/Data Science/AI. We seek world-class expertise in broadly defined areas of data science, machine learning, data mining, visualization, computer vision, and/or artificial intelligence. The Vanderbilt CS program provides a unique, collaborative,
and interdisciplinary research environment. Trans-institutional programs create collaborative opportunities for research across multiple fields. Vanderbilt University has a strong institutional commitment to recruiting and retaining an academically and culturally diverse community. Minorities, women, individuals with disabilities, and members of other underrepresented groups, in particular, are encouraged to apply. Vanderbilt is an Equal Opportunity/ Affirmative Action employer.

Applications should be submitted on-line at: http://apply.interfolio.com/4450I.

For more information, please see: http:// engineering.vanderbilt.edu/eecs.
Applications will be reviewed on a rolling basis beginning November 1, 2017. The deadline is January 15, 2018.

## VCU School of Engineering

Computer Science Faculty Openings
The Computer Science Department of the School of Engineering (SoEgr) at Virginia Commonwealth University (VCU) invites applications for Assistant/Associate/Full Professor faculty.

Candidates should be qualified for an appointment based on publications and funding record as well as excellence in graduate and undergraduate teaching. Candidates in all areas of computer science will be considered, including in the areas of strength of the department: cybersecurity and data science.

## Professional Opportunities

VCU, the largest university in Virginia, is a Carnegie-classified very high research activity university, ranked in the top 100 universities in the U.S. in federal R\&D expenditures. The SoEgr is in an extensive growth stage, doubling the number of its faculty and improving the quality of graduate and undergraduate students. Embarked on rapid growth, the department currently has 19 tenure-track and tenured faculty members and 3 full time instructors and plans to grow more in the next couple of years.

Basic Qualifications: Applicants must have a doctorate in Computer Science or a related field. Relevant professional experience after receiving Ph.D. is also required. Successful candidates should have a well-developed research portfolio with evidence of multidisciplinary applications, preferably related to life sciences, and external funding to complement and expand existing expertise within the department.

Application Process: Candidates should upload their application at https://www. vcujobs.com/postings/, position F56960, as a single PDF file that includes, in this order, a cover letter, curriculum vitae, research and teaching statements, and the names and e-mail addresses of five references; reference letters will be requested directly by the search committee. Only complete applications will be considered. Review of applications will start on November 15 , 2017, and will continue until the positions are filled. For additional information, please contact Chair of the faculty search committee, Prof. Lukasz Kurgan, email: lkurgan@vcu.edu or phone: (804) 827-3986.

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

## Wake Forest University

Assistant Teaching Professor or Professor-of-the-Practice<br>Department of Computer Science

Applications are invited for a full-time teaching professional at the rank of Assistant Teaching Professor or Professor-of-the-Practice. Applicants should have completed a PhD in Computer Science or Computer Engineering or have an M.S. degree with considerable experience. The successful candidate should have a demonstrated potential for excellence in undergraduate education. Emphasis for this position is in computer science education, including curriculum development, learning and teaching method design and implementation, and student engagement outside the classroom. This non-tenure track faculty position is a full-time, ninemonth appointment beginning for the 2018-2019 academic year and provides full benefits. Contracts are generally multi-year and renewable.

For more information and to submit an application, you may go directly to the full description and application by clicking here. You are also encouraged to visit the Wake Forest University career website http://www.wfu.careers/ and the department website http:// college.wfu.edu/cs/.

## Washington and Lee University

Assistant, Associate, or Full Professor

The Department of Computer Science at Washington and Lee University invites applications for TWO tenure-track positions at any rank for the fall of 2018. Candidates for Assistant Professor should have a Ph.D. in computer science by September 1, 2018, be committed to excellence in undergraduate teaching, and exhibit potential for maintaining a viable research program. Candidates for Associate Professor or Professor should also have a record of excellent teaching and an established research program. In addition to teaching courses in one or more of the core areas of computer science, candidates should be able to sponsor student research in computer science. Interdisciplinary opportunities are also available.

The Department consists of 5 faculty members (including the advertised positions) and a full-time technician. For more information about the department, see http://cs.wlu.edu/

Washington and Lee is a highly selective liberal arts college of approximately 1800 students located in the scenic Shenandoah Valley of Virginia.

Applications should include a cover letter, teaching and research statements, and three letters of reference, to be submitted to interfolio at http://apply.interfolio. com/44585 Files in PDF format are required.

Processing of applications will begin immediately and continue until the positions are filled. Washington and Lee

## Professional Opportunities

is an equal opportunity employer and encourages women and members of minority groups to apply.

## Wesleyan University

Assistant Professor of Computer Science
The Department of Mathematics and Computer Science at Wesleyan University invites applications for a tenure track assistant professorship in Computer Science to begin in Fall 2018. We encourage candidates in all areas of Computer Science to apply, including those who deepen our existing research strengths, and especially encourage candidates who can contribute to the diversity (broadly conceived) of the department. The teaching load is $2 / 1$ (three courses per year).

We will begin reviewing applications on Dec. 1, 2017. Applications must be submitted online at https://academicjobsonline. org/ajo/jobs/9599, where the full job description may be found.

## Yale University

Tenure-Track Faculty Positions

The Yale Computer Science Department invites applications for multiple tenuretrack faculty positions, at the levels of Assistant, Associate, or Full Professor, to start in the 2018-2019 academic year. Qualified applicants in all areas of computer science research are invited to apply. The department is slated to grow significantly over the next few years, and new hires will have the opportunity to influence future directions.

Applicants are expected to excel in both research and teaching. Yale provides many opportunities for research collaborations both inside and outside the Computer Science department. Interdisciplinary work is encouraged, with Yale's worldclass faculty in numerous computationally active fields. Yale faculty regularly have the opportunity to teach excellent students, both graduate and undergraduate. The department's home page can be found at http://cpsc.yale.edu/.

A candidate should hold (or expect to receive by the end of 2018) a Ph.D. in computer science or a related discipline. Applications submitted by December 15, 2017 will be given highest priority. Please apply at http://apply.interfolio.com/44480.

Yale University is an Affirmative Action/Equal Opportunity employer. Yale values diversity among its students, staff, and faculty and strongly welcomes applications from women, persons with disabilities, protected veterans, and underrepresented minorities.


[^0]:    - New CRA-E Resource - Teaching Computer Science: Capacity Building and Scaling

    See page 5 for full article.

    - CRA-E Presents Updated Conquer Website

    See page 6 for full article.

    - Nominations Open for 2018 CRA-E Undergraduate Research Faculty Mentoring Award

    See page 7 for full article.

    - CRA-E Graduate Fellows Program Accepting Nominations

    See page 8 for full article.

