

COMPUTING RESEARCH NEWS



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

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CRN At-A-Glance

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

The Computing Research Association invites nominations for the 2018 CRA **Distinguished Service Award** and **A. Nico Habermann Award**. The deadline for receipt of nominations is **December 8, 2017**. The CRA **Distinguished Service Award** is presented to a person who has made an outstanding service contribution to the computing research community. This award recognizes service in the areas of government affairs, professional societies, publications or conferences, and leadership that has a major impact on computing research. The CRA **A. Nico Habermann Award** is presented a person who has made outstanding contributions aimed at increasing the numbers and/or successes of underrepresented groups in the computing research community. This award recognizes work in areas of government affairs, educational programs, professional societies, public awareness, and leadership that has a major impact on advancing these groups in the computing research community. *See page 2 for full article.*

Nominations Open for 2018 CRA Award for Outstanding Undergraduate Researchers

The Computing Research Association is pleased to announce the annual CRA **Award for Outstanding Undergraduate Researchers**, which recognizes undergraduate students in North American colleges and universities who show outstanding research potential in an area of computing research. The award is a wonderful way to recognize your best student researchers and your department. *See page 3 for full article.*

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



The Computing Research Association invites nominations for the 2018 CRA Distinguished Service Award and A. Nico Habermann Award.

Distinguished Service Award

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

Guidelines for Nominators

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

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

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

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

[Submit nominations here.](#)

A. Nico Habermann Award

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

Guidelines for Nominators

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

[Submit nominations here.](#)

Questions or comments may be addressed to awards@cra.org. The deadline for receipt of nominations is December 8, 2017. Current members of the CRA board of directors are not eligible for these two awards.

Nominations Open for 2018 CRA Award for Outstanding Undergraduate Researchers



CRA-E

Computing Research Association
Education

The Computing Research Association is pleased to announce the annual CRA Award for **Outstanding Undergraduate Researchers**, which recognizes undergraduate students in North American colleges and universities who show outstanding research potential in an area of computing research. The award is a wonderful way to recognize your best student researchers and your department.

Beginning this year, departments that regularly nominate students for this award will be highlighted on the CRA website. In addition, a number of students who receive honorable mentions and above will be invited to describe their research in the new monthly “Undergraduate Research Highlights” series on the CRA-E website.

Eligible nominees must be enrolled as undergraduates in a North American college or university throughout the academic year September 2017 to May 2018. PhD-granting departments may nominate up to four students and other departments may nominate up to two students. Several changes have been made to the nomination process this year:

- Nomination materials are *no longer required* to include information on nominees' gender identities.
- Each nomination includes *one letter of recommendation* rather than two letters.
- Each nominee must submit a *personal statement* in addition to a resume and research statement.

Up to four CRA Outstanding Undergraduate Research Awards will be made. Each award recipient will receive financial assistance of up to \$1500 to attend a research conference of their choice. In addition, some nominees will be designated as runners-up, finalists, and honorable mentions. The award recipients, runners-up, finalists, and honorable mentions will be announced by e-mail in mid-December, will receive certificates of their awards, and will be recognized on CRA's website.

Everything you need to make a nomination for the CRA Outstanding Undergraduate Research Award, including detailed instructions and the nomination form, is available at: <http://cra.org/crae/awards/cra-outstanding-undergraduate-researchers/>.

Questions and inquiries about the awards should be sent to: undergradawards@cra.org. The deadline for nominations is **Monday, October 27, 2017**.

Microsoft Research and **Mitsubishi Electric Research Labs** (MERL) sponsor the CRA Outstanding Undergraduate Researchers Award Program in alternate years. The 2018 award is being sponsored by *MERL*.

Faculty members nominating a student for the CRA award are encouraged to talk to the student about the NSF Graduate Research Fellowship Program (GRFP). The required nomination materials are similar and some can be used for both the CRA-E award and the NSF GRFP application. The NSF Graduate Research Fellowship Program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based Master's and doctoral degrees at accredited United States institutions. See <https://www.nsfgrfp.org/> for information for applicants, letter writers, how to sign up as a panelist, and the program solicitation (**NSF 16-588**). Applications for GRFs are due just before the CRA award nominations, on October 24, 2017.

Please share this document with your colleagues!

CERP Director Discusses Strategies to Promote Diversity in Tech in EdTech Magazine



CERP

Computing Research Association
Evaluation

CRA's own Jane Stout, director of the **CRA Center for Evaluating the Research Pipeline (CERP)**, was recently featured in the article **"Q&A: Researcher Shares Strategies to Increase Diversity in Tech"** in *EdTech Magazine: Focus on Higher Education*. Amy Burroughs, the managing editor of *EdTech*, spoke with Stout about why there is a lack of diversity in tech, how institutions benefit from diverse groups, and how IT leaders can build more diverse teams. Drawing from her social science background and her current research on factors that influence women and minorities pursuing computing careers, Stout emphasized the importance of building a sense of belonging and community and encouraged IT managers to actively recruit women who can serve as role models and mentors. She also encourages IT managers to recognize that there are different types of effective leadership styles.

Below are highlights from the article:

EDTECH: Your research has shown that when young women have a role model, that increases their confidence in work settings. How can IT managers connect female employees and mentors?

STOUT: First, leaders should **actively recruit senior women to present their technical work in colloquia** or brown-bag sessions. Even if you don't have senior women on your team now, hopefully, you know women who you can bring in to give a technical talk. Leaders should also try to provide opportunities for these speakers to meet one-on-one with employees, especially women, and mentor them.

Organizations should strive, of course, to diversify their leadership. This shows underrepresented groups that all types of people are capable of rising to the top. The road to success seems more feasible if you see successful people who look like you. One might make the argument that there aren't enough qualified women to nominate for leadership roles. **To that I say: Try harder.** If this is really your intention, you're going to need to do things like **search outside of your own professional network and think about whether your promotion guidelines unintentionally favor men over women.**

EDTECH: How can IT managers increase diversity at the top?

STOUT: In our culture, the typical leader is assertive and commands the room, a stereotypically masculine concept of leadership. But a lot of research shows that people who are compassionate, good listeners, and democratic in considering

others' opinions and needs are also good leaders. So I would encourage organizational leadership to recognize that **there are different types of effective leadership styles.** If you broaden the lens of the traits you're looking for, you're probably going to get different sorts of people who meet those qualifications.

[Click here to read the full Q&A.](#)

CERP's work is supported through National Science Foundation awards CNS-**I246649** and DUE-**I431112**.

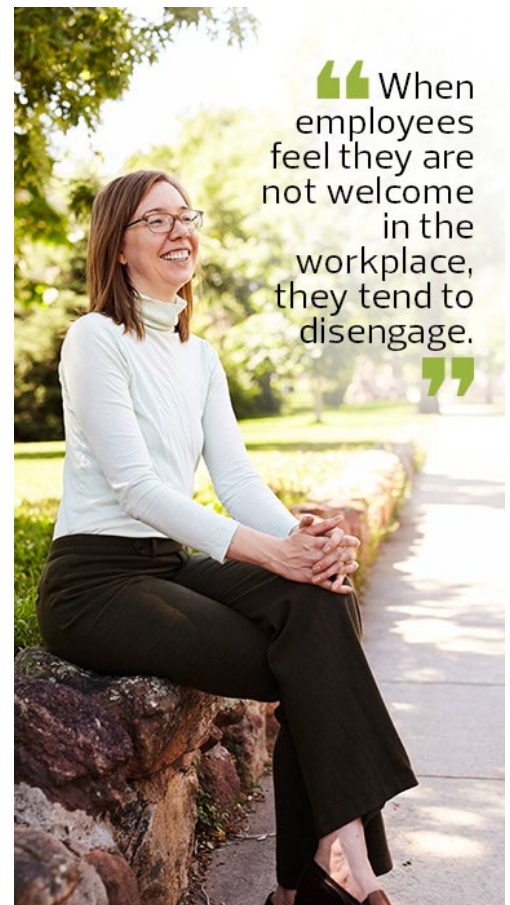
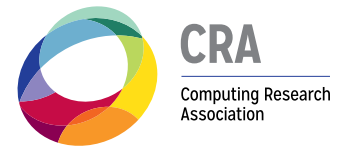


Photo Credit: Jeff Nelson, EdTech Magazine

Apply Now for CRA's New URM Grad Cohort Workshop



The Computing Research Association is pleased to announce a new iteration of the Graduate Cohort Workshop designed specifically for underrepresented minorities (URMs) in computing and persons with disabilities. **Applications are now open** for the inaugural CRA **URM Graduate Cohort Workshop**, which will be held March 16-17, 2018 in San Diego, Calif.

The workshop aims to increase the ranks of senior underrepresented minorities and persons with disabilities in computing research through their graduate studies by building and mentoring nationwide communities. The workshop is modeled on the successful **CRA-W Grad Cohort Workshop for Women**. At the CRA URM Grad Cohort Workshop, participants will spend two days interacting with senior computing researchers and professionals, who will share pertinent information on graduate school survival skills, as well as more personal information and insights about their experiences. The workshop will include a mix of formal presentations, informal discussions, and social events. By attending URM Grad Cohort, participants can build mentoring relationships and develop peer networks that will form the basis for ongoing activities during their graduate career and beyond.

Reasonable travel expenses will be reimbursed by CRA with funds generously provided by our URM Grad Cohort sponsors, including the National Science Foundation, the Computing Research Association, and the Association for Computing Machinery. For more information on sponsorships, contact Erik Russell, CRA Director of Programs, at erik@cra.org.

Please share this opportunity with your students and interested individuals.

Workshop Details

Date and Location:
March 16-17, 2018 in San Diego, CA.

Application Period:
August 15–October 15, 2017. [Click here to apply.](#)

Eligibility: Master's and Ph.D. computer science and engineering students who are attending an institution in the U.S. or its territories, or an institution in Canada. Applicants from underrepresented groups in computing will be given priority (Alaska Native, Black/African American, Hispanic, Native American, Native Hawaiian and other Pacific Islander, and/or persons with disabilities).

This program is based upon work supported by the National Science Foundation under grant number 1246649. Any opinions, findings, and conclusions or recommendations expressed do not necessarily reflect the views of the National Science Foundation.

CRA Surveys, Fall 2017

In fall 2017, CRA will be conducting the usual Taulbee Survey and a one-time Teaching Faculty Survey.

Taulbee Survey

The 2017 CRA Taulbee Survey will be starting soon. As has been our recent practice, the survey will be split into two parts, salary and main (everything else). This allows us to set an earlier deadline for the salary section in order to produce a preliminary salary report in December, while giving departments more time to collect and enter the information in the rest of the survey if needed.

The schedule will be as follows.

- By September 8: All doctoral departments will be contacted to update Taulbee user information. The academic unit head will receive an email and so will the Taulbee primary contact, if separate.
- September 13: PDF will be available for data gathering.
- September 19: Salary section opens for input.
- September 25: Main section opens for input.
- November 20: Due date for salary section.
- December 18: Preliminary salary report available to participants.
- January 8, 2018: Due date for the main Taulbee section.
- April 2018: Full Taulbee report to CRA members and participating departments.
- May 2018: Published in CRN.

If you have any questions, contact Betsy Bizot at bizot@cra.org

Teaching Faculty Survey – Academic Units

The CRA Teaching Faculty Committee will be collecting information in fall 2017 in two ways. First, we will ask departments for the details of policies and expectations governing the work of their non-tenure-track teaching faculty via a separate Teaching Faculty Survey. This survey will be available sometime in October and will use the same online system and accounts that are used for the Taulbee Survey. Academic unit heads and Taulbee primary contacts will receive more information at that time.

Teaching Faculty Information – Teaching Faculty Members

We also want to collect information directly from teaching faculty themselves. This is being managed by a SIGCSE group that has been discussing the issues of teaching faculty at research institutions for several years. They are currently finalizing the spreadsheet that will be used to collect the information. Teaching faculty members who would like to follow this group and be notified when the spreadsheet is ready for use can join their Piazza group at <http://piazza.com/sigcse/other/teachingtrackfaculty> with access code teach.

CRA Board Member Highlight: IEEE Honors Susan Davidson With TCDE Impact Award



Interview by Shar Steed, CRA Communications Specialist

This year, CRA Board Chair Susan Davidson received the IEEE TCDE Impact Award for “expanding the reach of data engineering within scientific disciplines.” In this article, Shar asks her how her career led to this award.

Shar: How did your interest in bioinformatics come about?

Susan: With a father who was an applied mathematician and mother who was a plant scientist, both of whom were professors at Cornell University, I am truly a product of my environment! I studied mathematics at Cornell as an undergraduate, and after receiving my Ph.D. in computer science at Princeton University, I became a faculty member at the University of Pennsylvania. There I met Chris Overton, who had a Ph.D. in

developmental biology and came to Penn to obtain a Master’s in computer science, because he believed that *the future of biology was computational*. He was quite a visionary for the time!

After Chris was hired to head up the informatics component of the Center for Human Chromosome 22 in the 1990s, we frequently discussed the challenges he faced. This became a rich vein of research problems that the Database Group at Penn has worked on for over two decades.

Shar: What are some of the research problems you have worked on in bioinformatics?

Susan: Two of my favorite problems have been data integration and data provenance.

Data integration systems in the 1990s focused on relational databases. However, most data generated within the Human Genome Project were stored in specialized file formats with programmatic interfaces. This led experts to state in a report of the 1993 Invitational DOE Workshop on



About the Awardee

Susan B. Davidson received the B.A. degree in mathematics from Cornell University in 1978, and the M.A. and Ph.D. degrees in electrical engineering and computer science from Princeton University in 1980 and 1982. Davidson is the Weiss Professor of Computer and Information Science (CIS) at the University of Pennsylvania, where she has been since 1982, and currently serves as chair of the board of the Computing Research Association.

Davidson's research interests include database and web-based systems, scientific data management, provenance, crowdsourcing, and data citation. She was the founding co-director of the Penn Center for Bioinformatics from 1997-2003, and the founding co-director of the Greater Philadelphia

Bioinformatics Alliance. She served as Deputy Dean of the School of Engineering and Applied Science from 2005-2007 and Chair of CIS from 2008-2013. She is an ACM Fellow, Corresponding Fellow of the Royal Society of Edinburgh, and received a Fulbright Scholarship and Hitachi Chair in 2004. Her awards include the 2017 IEEE TCDE Impact Award and the 2015 Trustees' Council of Penn Women/Provost Award for her work on advancing women in engineering.

Board Member Highlight *Continued*

Genome Informatics that “Until a fully relationalized sequence database is available, none of the queries in this appendix can be answered.” We were able to answer the “unanswerable queries” within about a month using our data integration system, Kleisli, which used a complex-object model of data, language based on a comprehension syntax, and optimizations that went beyond relational systems. Our team also included experts who knew where the appropriate data sources were and how to use them to answer the queries, a problem which has not been as well addressed by computational techniques.

The challenge of **data provenance** arose in the context of data integration. Not all data sources were equally trusted, but no one wanted to express this opinion by failing to include a relevant data set. The solution was to make provenance available so that users could form their own conclusions. Within the Database Group at Penn we have studied the problem of data provenance within the context of databases (fine-grained provenance, where

reasoning is at the level of algebraic operators) and workflows (coarse-grained provenance, where reasoning is at the level seen between “black box” processing steps). Since then, the importance of provenance has been widely recognized, especially as it relates to reproducibility and debugging in scientific applications.

Shar: What do you like best about working in this interdisciplinary area?

Susan: I really enjoy working with scientists in other fields, since they have very different vocabularies, cultures, needs and perspectives on problems. Navigating these differences can sometimes be challenging, especially trading off short-term computational needs versus long-term research ideas, but these collaborations have almost always led to really interesting research challenges. And it is especially gratifying to see these ideas being used in practice!

Expanding the Pipeline: Celebrating Black Women in Computing

By Jamika Burge, Quincy Brown, and Jakita Thomas

Exploring white privilege in the context of computing education, for example, would facilitate a rich discussion of the experiences of black women students and professionals – and help provide solutions. This would also lead to the development of inter-vention strategies that actually work for black women throughout their educational and career pursuits.

In an effort to better support and empirically discover the community's needs, the inaugural Black Women in Computing Conference, which was sponsored by blackcomputeHER.org, was held at Howard University in January 2017. The conference was an opportunity to grow and support a community of black women in computing that provides resources and support to others.

The contributions of the conference stem from the need to foster inclusion among diverse experiences with respect to computing, particularly from the perspective of black women. The conference amplified the voices of attendees, who were black women and their allies, simply adding their experiences to the discipline's discourse by actively investigating the intersectionality research to differentiate the experiences of black women from other groups in computing; providing a critical analysis of the conditions under which black women thrive in computing careers; and recording the experiences that black women share so we can articulate their stories and how their caliber of their experiential commonalities differentiate them from other groups in computing. The conference, its research, and its peripheral professional development activities inform the national dialogue in support of an inclusive technology

workforce. Studying these issues around black women in computing helps us better understand the achievement gap as well as the persistence (or retention) gap in the discipline.

Black women do not openly talk about their negative experiences for a variety of reasons. These experiences range from being ostracized for being different (e.g., some peers or professors do not want to work with black women) to the possibility that raising concerns around inequality can result in being labeled as overly aggressive or portrayed as the “angry black woman” who does not take her academics seriously.

Black women's experiences simply differ from other women's experiences. The “double bind” nature of black women's participation in STEM ensures that issues of discrimination are indistinguishable from gender or race (Malcom and Malcom, 2011; Malcom, Hall, and Brown, 1976). Within the computing community, awareness about black women's experiences is closeted. As the computing education experience for black women is different from other groups, it is important to unpack these differences to better understand the nature of this silence. (It should be noted that other women of color groups, such as Hispanic and Native American, may have similar experiences, but further research is needed.)

To date, our research (Burge, Yamaguchi, and Thomas, 2017; Burge, Yamaguchi, and Thomas, 2016; and Yamaguchi and Burge, 2016) confirms that the experiences for black women in computing are not only different, but it highlights unique (and in some ways, simple) opportunities for providing more inclusive learning

*Attendees of 2017
#blackcomputeHER
Conference, in Washington,
D.C. The blackcomputeHER.org
founders are seated in front
row, starting third from the left:
Jamika Burge, Jakita Thomas,
and Quincy Brown.*





CRA-W

Computing Research Association
Women

Celebrating Black Women in Computing *Continued*



and work environments. For example, attendees overwhelmingly appreciated the opportunity to share their experiences in a safe and supportive environment. Additionally, attendees affirmed that having role models (many of whom did not look like them) and resilience in K-12 helped to create their personal narratives of what it means to be successful in computing. As a result, we recommend an increase in mentoring opportunities for black women and girls. Going a step further, we propose connecting the pathways of support from middle school through one's career. We are conducting more research in this space, and have developed partnerships to build out a pathway model.

In addition to the 2017 conference, we held a workshop for black women in computing in January 2016 that explored some early

questions around support structures, advancement in the field, and workforce development. These convenings, while supportive to black women, also served as a way to spring us into action in support of the larger computing community. When we understand more about different perspectives, we recognize that our collective differences are not as big as we think. Inclusion opens our minds to fresh and disruptive ideas, true innovation, and opportunities for personal growth.

Consider joining us for the 2018 *#blackcomputeHER Conference* and be part of the conversation!

Please check blackcomputeHER.org for more information.

About the Authors

Quincy Brown, Jamika Burge, and Jakita Thomas are the co-founders of *blackcomputeHER.org*, which is dedicated to supporting computer science and STEM education and workforce development for black women and girls. We aim to leverage our research expertise to create a clearinghouse for literature about black women in computing and disseminate data and information that creates a spirit of urgency around the lack of sustainable diversity in computing, particularly with the current efforts toward coding. *blackcomputeHER.org* organizes the annual **#blackcomputeHER** conference which provides a platform for supporting the community of black women and girls in computing and technology through education and professional development. Visit blackcomputeHER.org for more information.

We gratefully acknowledge the National Science Foundation for its support of the 2016 Black Women in Computing Workshop (award 1620932) and the 2017 Black Women in Computing Conference (award 1642205). We are also grateful to our sponsors of the 2017 Conference: Intel Corporation, Capital One, the Anita Borg Institute, the Association for Computing Machinery (ACM), the National Center for Women in Technology (NCWIT), and the Thurgood Marshall College Fund (TMCf).



Celebrating Black Women in Computing *Continued*

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Advanced Cyberinfrastructure for Science, Engineering, and Public Policy



CCC

Computing Community Consortium
Catalyst

by CCC Staff

The Computing Community Consortium (CCC) Convergence of Data and Computing Task Force responded to the National Science Foundation (NSF) Dear Colleague Letter: Request for Information on Future Needs for Advanced Cyberinfrastructure to Support Science and Engineering Research (NSF CI 2030) in April 2017. You can see [their response](#) here. Recently, the NSF released all the responses to NSF CI 2030 RFI.

This response led to the CCC's *Advanced Cyberinfrastructure for Science, Engineering, and Public Policy* white paper.

From the white paper:

Progress in many domains increasingly benefits from our ability to view the systems through a computational lens. These advances would not be possible without the advanced data and computational cyberinfrastructure and tools for data capture, integration, analysis, modeling, and simulation. However, despite, and perhaps because of advances in “big data” technologies for data acquisition, management, and analytics, the other largely manual, and labor-intensive aspects of the decision-making process have become the rate-limiting steps to progress.

Advancing the capability and capacity for evidence-based improvements in science, engineering, and public policy requires support for:

1. Computational abstractions of the relevant domains coupled with computational methods and tools for their analysis, synthesis, simulation, visualization, sharing, and integration;
2. Cognitive tools that leverage and extend the reach of human intellect, and partner with humans on all aspects of the activity;
3. Nimble and trustworthy data cyber-infrastructures that connect, manage a variety of instruments, multiple interrelated data types and associated metadata, data representations, processes, protocols and workflows; and enforce applicable security and data access and use policies; and
4. Organizational and social structures and processes for collaborative and coordinated activity across disciplinary and institutional boundaries.

Read the [full white paper here](#).

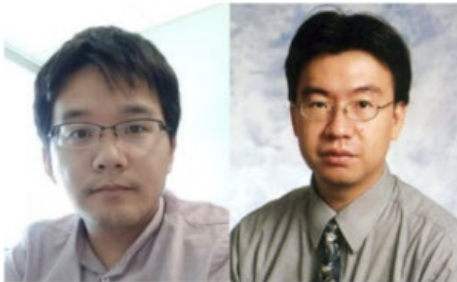
Great Innovative Idea - Pneumatic Actuated Soft Micromold (PASMO) Device



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by CCC Staff



Po-Jung Huang and Jun Kameoka

The following Great Innovative Idea is from **Po-Jung Huang** and **Jun Kameoka**. Their paper called **Pneumatic Actuated Soft Micromold (PASMO) device for Creating 3D Collagen Microparticles** was one of the featured talks at the **Computing Community Consortium (CCC) sponsored Material Robotics (MaRo) Workshop at the 2017 Robotics Science and Systems (RSS) Conference**.

The Idea

Three-dimensional cell culture is the method that can simply the process for in vivo test. Unlike two-dimensional cell culture, three-dimensional cell culture provides sufficient information, like cell-cell communication and cell-matrix interaction to simulate real human tissue. Pneumatic actuated soft micromold (PASMO) provides a method to generate collagen based three-dimensional microenvironment for simulating progression of tumor and extending to cancer model. PASMO device is integrated the soft actuator and particles' template and provides controllable process to manufacture and release collagen particles. The mechanism for releasing collagen particles is generating mold expansion after deforming PASMO device through pneumatic actuation. During this actuation and deformation, collagen particles will float and be squeezed out from PASMO device in culture media or water without any damage. Additionally, PASMO device can be used in any material, especially for extremely soft material, such as alginate or Matrigel™, to build cellular three-dimensional microenvironment.

Impact

This is the first approach to create the three-dimensional collagen cellular microenvironment through pneumatic actuated soft micromold (PASMO). The approach not only can easily prepare the collagen microenvironment for cells but also can mimic the human body for constructing 3D microenvironment. This 3D microenvironment provides a simple way to simulate and predict cellular response from patients. Based on these responses, we can discover and develop the proper treatment for patients as personally medical care in the future.

Other Research

Po-Jung Huang: My research interests in using soft actuator to create microenvironment for encapsulating cells or bacteria. And this application of microenvironment includes cell therapy, cancer research, especially for anti-cancer drug screening, bioreactor, and biosensor. Moreover, this microenvironment integrates with microfluidic system to mimic the

circulation system in order to simulate the tumor progression in human body.

Jun Kameoka: My research interests in using soft actuator to apply in biomedical application, especially for bio-maching, like laparoscopy. Moreover, I am also focused on developing nano-fibrous microfluidic device to detect and monitor the single molecular.

Researchers' Background

Po-Jung Huang: Micro- or Nano- fluidics, soft actuator, and functional biomaterial

Jun Kameoka: Bio-nano machining, nanostructure science and engineering, nano-sensors and molecular manipulation, micro and nano-fluidics, bio-nano hybrid devices for medical applications

Links

Po-Jung Huang: <https://www.linkedin.com/in/po-jung-huang-a5354744/>

Jun Kameoka: <https://engineering.tamu.edu/electrical/people/jkameoka>

To view more Great Innovative Ideas, please click [here](#).

Master's and Ph.D. Students in Computing Have Different Sources of Mentorship



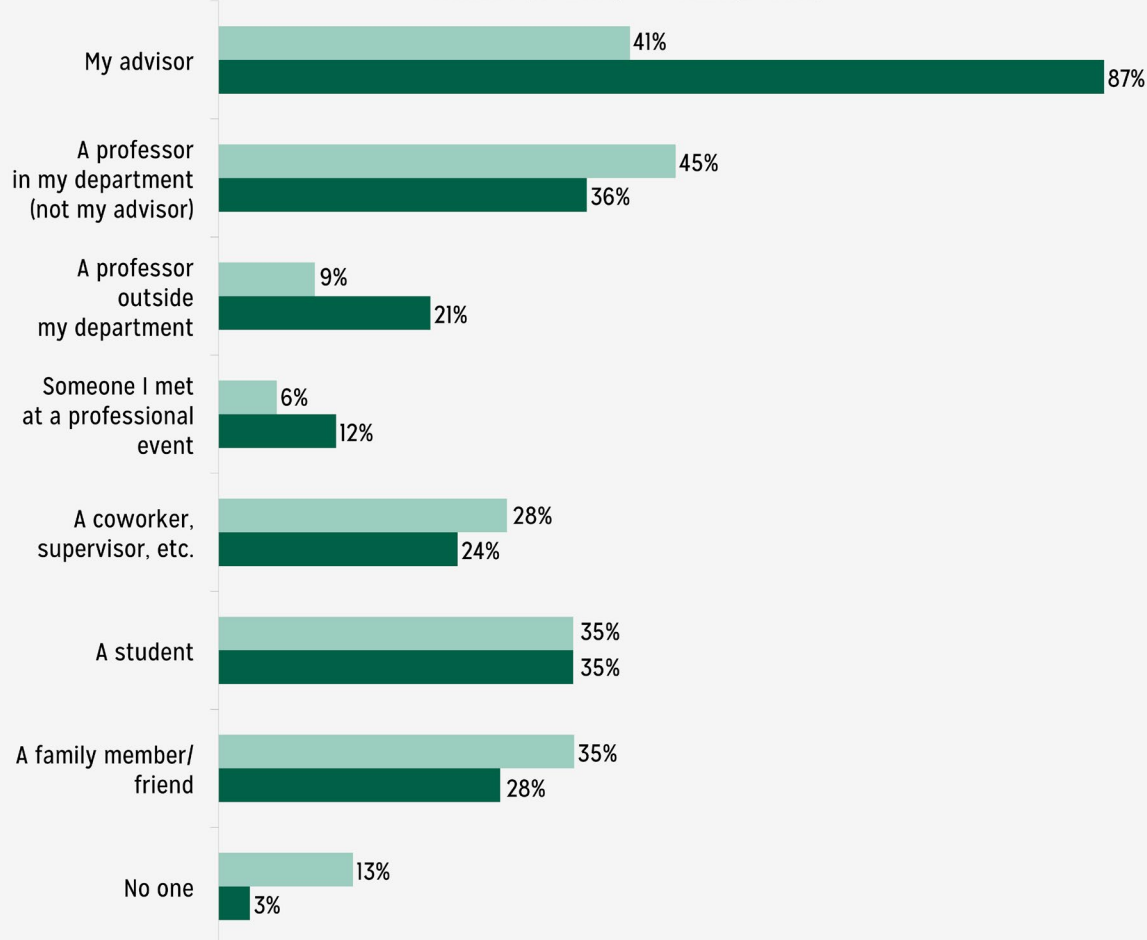
CERP

Computing Research Association
Evaluation

By Burçin Tamer, CERP Research Scientist

Who do you consider to be a mentor? Select all that apply.

■ Master's (n = 2089) ■ Ph.D. (n = 1450)



Master's and Ph.D. students reported the individuals they consider to be their mentors in CERP's 2016 **Data Buddies** survey. While most Ph.D. students (87%) reported their advisor was among their mentors, only 41% of Master's students did so. More Master's students compared to Ph.D. students reported having a coworker/supervisor and/or a family member/friend as one of their mentors. Most significantly, 13% of Master's students reported not having a mentor at all compared to 3% of Ph.D. students. Given the importance of mentorship for selecting a career path and excelling in it [1, 2], it is important to understand the types of mentorship computing graduate students receive.

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- [2] Roberta Ambrosino. (2009). Mentors as Fellow Travelers. *Adult Learning*, 20(1), 31-34.

Notes:

The survey question used for this analysis was as follows: *A mentor is someone with whom you have an ongoing relationship, and who provides you advice and assistance in advancing in your career. Among the people below, who do you consider to be a mentor? Please select all that apply.* The choices were: *My advisor; A professor within my department (not my advisor); A professor outside of my department; A student (e.g., graduate student, Teaching Assistant, peer); Someone I met at a conference or mentoring program sponsored (or other professional activity); A family member/partner, friend, pastor, or someone else with whom I have a personal relationship; A coworker, supervisor, or someone else with whom I have a professional relationship; Someone else; No one.* The "someone else" option was excluded from analysis because less than 2% of the respondents selected this option. A total of 3,851 students (2,303 Master's and 1,548 Ph.D.) responded to the survey. Eight percent of all respondents (n = 312; n = 214 Master's and n = 98 Ph.D.) did not provide a response to the mentor question. Chi-squared tests were run to test whether Master's and Ph.D. students selected each option at different rates. Master's and Ph.D. students' rate of mentorship is statistically significant ($p < .05$) across all categories, with the exception of having "a student" as a mentor.

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Column Editor

Expanding the Pipeline
Patty Lopez, Intel

Professional Opportunities

Bard College

Full-time Tenure-track Assistant Professor in Computer Science

Bard College invites applications for a full-time tenure-track position in computer science at the rank of assistant professor to begin fall 2018. Applications are sought in all areas of computer science, although special consideration will be given to those with research interests in human-computer interaction, information security, and data science.

The successful candidate will have a commitment to quality, innovative undergraduate teaching at a liberal arts college; maintaining an active research program; contributing to the general education curriculum; and engaging with the life of the college.

Candidates should have a Ph.D. in Computer Science or a related area (e.g. Applied Mathematics, Computational Science, Psychology, or Design) or be nearing its completion by September of 2018.

To apply, please send a cover letter, curriculum vitae, teaching and research statements, three letters of recommendation (at least one addressing teaching) through Interfolio.com at: <http://apply.interfolio.com/43367>

Review of applications will begin October 6, 2017. For more information on the Computer Science Program at Bard, visit <http://cs.bard.edu>, or contact Keith O'Hara at kohara@bard.edu

Bard College is an equal opportunity employer and is especially interested in candidates who intend to contribute to the diversity goals of the institution.

CalPoly, San Luis Obis

Full-Time Lecturer - Computer Science

COMPUTER SCIENCE: Full Time Lecturer positions available in the Computer Science Department at Cal Poly, San Luis Obispo, during the 2017-2018 academic year. For details, qualifications and application instructions (online faculty application required), visit www.calpolyjobs.org and refer to Requisition #104537. Review Begin Date: August 14, 2017. EEO.

Carleton College

Assistant Professor, Tenure-Track

Carleton College invites applications for two tenure-track positions in computer science, beginning September 1, 2018. A Ph.D. in hand or its imminent completion by the start date is required. We expect to make appointments at the assistant professor level, but highly qualified candidates at any rank will be considered. For the first position, we especially seek candidates interested in teaching courses in operating systems and related topics. For the second position, we are interested in candidates with any specialization in computer science that will complement the existing strengths of the department.

Carleton is a highly selective liberal arts college with outstanding, enthusiastic students. We seek an equally enthusiastic computer scientist committed to excellence in teaching, curriculum design, ongoing research, and undergraduate research advising. We are particularly interested in applicants who have a commitment to attracting and retaining students from underrepresented groups. The appointee would be expected to teach courses at a range of levels, from the introductory level to advanced undergraduate electives.

Carleton's Department of Computer Science (cs.carleton.edu) includes eight faculty and an experienced full-time system administrator, and typically graduates between 50 and 60 majors annually.

To apply, please visit the Carleton College website at jobs.carleton.edu and complete the online application, including a cover letter, CV, a graduate transcript, and contact information for writers of three letters of reference (at least one of which should address your teaching), a statement about teaching in an undergraduate liberal arts environment and how you would contribute to a college community that embraces a diversity of people and perspectives as one of its core values, and a statement about research and other scholarly activity in an undergraduate liberal arts environment. Questions about the position or the application process may be directed to csjobs@carleton.edu.

Professional Opportunities

Applications completed by November 30, 2017, including reference letters, will receive full consideration.

Carleton College does not discriminate on the basis of race, color, creed, ethnicity, religion, sex, national origin, marital status, veteran status, actual or perceived sexual orientation, gender identity or expression, status with regard to public assistance, disability, or age in providing employment or access to its educational facilities and activities. We are committed to developing our faculty to better reflect the diversity of our student body and American society. Women and members of minority groups are strongly encouraged to apply.

Gustavus Adolphus College

Assistant Professor of Computer Science

Mathematics, Computer Science, and Statistics: Computer Science

Gustavus Adolphus College invites applications for a tenure-track position of Assistant Professor in the Department of Mathematics, Computer Science, and Statistics to begin September 1, 2018. The department is considering applicants with demonstrated excellence in teaching and the ability to teach introductory computer science courses using Python and Java. We seek candidates who have an earned doctorate in computer science (or a closely-related discipline), but will consider candidates who have achieved ABD status.

Visit <http://gustavus.edu/jobs> for application instructions. Review of applications will begin on November 10, 2017, and continue until the position is filled.

EOE Employer/Disabled/Vet

Hofstra University

Assistant/Associate Professor in Computer Science

Hofstra University's Department of Computer Science in the Fred DeMatteis School of Engineering and Applied Science (www.hofstra.edu/compscience) invites applications for a tenure-track faculty position at the Assistant or Associate Professor levels to begin in spring 2018. Strong candidates in all areas of computer science are welcome to apply, with preference given to individuals who specialize in big data and related topics. Applicants are expected to have completed a PhD in computer science or a closely related field by February 1, 2018. The Computer Science and Computer Engineering programs at Hofstra are experiencing rapid growth, and the successful applicants will contribute to the further development of a top-tier undergraduate educational institution. The department offers BA, BS, and MS degrees in Computer Science and a BS in Computer Engineering. Current faculty research interests include: cybersecurity and privacy, computer vision, cognitive neuroscience, computability, data mining, software engineering, and programming languages. The department has newly

updated facilities with 6 labs, including a state-of-the-art "big data" lab with 20 servers, a 64 CPU machine and 1PB storage. Preference is given to applicants who can actively use the new lab in their research and teaching.

Hofstra University is the largest private liberal arts institution on Long Island, NY. It is located 25 miles east of Manhattan. Interested applicants should send a curriculum vitae, a statement of teaching, a statement of current research interests and anticipated future research projects, two sample publications, and three letters of academic references to the Search Committee Chairperson at: SEAS4@hofstra.edu by September 15, 2017.

Hofstra University is an equal opportunity employer, committed to fostering diversity in its faculty, administrative staff and student body, and encourages applications from the entire spectrum of a diverse community.

Johns Hopkins University

Postdoctoral Researcher

The Center for Language and Speech Processing (CLSP) at Johns Hopkins University seeks a postdoctoral fellow in natural language processing, machine learning and health informatics.

Research topics include:

- Social Media Trend Detection
- Clinical Medical Text Analysis
- Text Topic Identification and Analysis
- Multilingual and Low-Resource Machine Translation

Professional Opportunities

Host faculty include: Mark Dredze, David Yarowsky, Jason Eisner, Sanjeev Khudanpur, Benjamin Van Durme

Details and application information:
<http://www.clsp.jhu.edu/employment-opportunities/>

KAIST

Tenure Track Faculty Positions

The Graduate School of Culture Technology (GSCT) at KAIST invites applicants for tenure-track faculty positions.

'Culture technology' is a multidisciplinary field drawing on virtually every aspect of our life, and evolves rapidly with the advancement of digital technology.

KAIST GSCT is looking for candidates for tenure-track positions in the broad areas of CT including but not limited to

- Cognitive science for human-culture research
- Complex systems, AI, NLP for cultural systems and information
- Music technology
- Design computing
- Computational fabrication

While applications are accepted year-round, initial consideration will be given to applications received on or before September 30, 2017. The appointment can begin from 2018 Spring semester.

More information on GSCT and the recruiting process is available at <https://ct.kaist.ac.kr/event/sub03.php?no=461>

Lake Superior State University

Term Assistant Professor of Computer Science

Lake Superior State University seeks applicants for an open-rank, term faculty position in Computer Science/Computer Networking. This is a full-time position to begin in the fall semester, 2017. A term position carries a contract of up to three years that has the potential to be renewed and requires teaching 12 credit hours per semester. The School's facilities include two computer classrooms/ instructional laboratories for teaching programming, computer networking, and web development concentration. The School offers Bachelor's degrees in Computer Science, Computer Networking, and Computer Networking – Web Development Concentration.

To apply visit our website at <https://jobs.lssu.edu>

Lawrence Berkeley National Lab

High-Performance Computing Systems Engineer - 83960

The NERSC Center (<http://www.nersc.gov/>) at LBNL is looking for exceptional individuals to join our Computational Systems Group. As a member of our team you will contribute to the development of innovative solutions for supporting science at scale on the next generation of supercomputers. You can apply at <http://50.73.55.13/counter.php?id=105845>.

Macalester College

Two Tenure-Track Assistant Professors of Computer Science

Macalester invites applications for two tenure-track positions at the assistant professor level to begin Fall 2018. Candidates must have or be completing a PhD in Computer Science and have a strong commitment to both teaching and research in an undergraduate liberal arts environment. Evaluation of applications will begin October 15, 2017 and continue until the position is filled.

More details available at <https://www.macalester.edu/academics/mcs/cs/compscitenture-trackjob.html>

McMaster University

Senior Software Engineering Faculty Position in Computing and Software

The Faculty of Engineering at McMaster University has a reputation for innovative programs, cutting-edge research, leading faculty, and aspiring students. It has earned a strong reputation as a centre for academic excellence and innovation. The Faculty has approximately 180 faculty members, along with close to 4,500 undergraduate and 1,000 graduate students. The Faculty of Engineering promotes a nurturing and inclusive environment where opportunities are made available for personal growth and professional development.

The Department of Computing and Software offers comprehensive undergraduate and graduate programs

Professional Opportunities

in Software Engineering as well as Computer Science and undergraduate Mechatronics Engineering. To enrich its flourishing Software Engineering research program, the Department of Computing and Software at McMaster University is seeking an outstanding individual for a senior faculty position at the rank of either Associate Professor or Full Professor. The Department is slated to grow significantly over the next few years, and the new hire will be expected to play a leadership role and have the opportunity to influence future hiring, research, and teaching directions.

Qualified candidates in the following areas are strongly encouraged to apply: model based software engineering, rigorous software engineering methods, and Cyber-Physical Systems. Exceptional candidates in related areas of Software Engineering will also be considered. Candidates must have demonstrated excellence in research, as well as having strong communication skills and being committed to education. They are expected to have a strong record of achievement in research funding, including from industry. They are also expected to have demonstrated an ability to work effectively with individuals from diverse communities and cultures. The successful candidates will be expected to establish a dynamic software engineering research program with strong industrial support, to be engaging teachers and mentors at both the undergraduate and graduate levels, and to make a strong commitment to curriculum development. They will also be expected to explore opportunities for research collaborations across the Faculty of Engineering, and across the University.

Successful candidates are expected to become registered with Professional Engineers Ontario.

The successful candidates will have the opportunity to engage with faculty members and research staff associated with McMaster's world-class research and teaching laboratory facilities in software engineering, data intensive systems and data analytics areas, including: the McMaster Centre for Software Certification (McSCert), the McMaster Automotive Resource Centre (MARC), the Shared Hierarchical Academic Research Computing Network (SharcNet), Advanced Optimization Laboratory (AdvOL), Computing Infrastructure Research Centre (CIRC), and the MacData Institute.

All qualified applicants are encouraged to apply. However, Canadian citizens and permanent residents will be given priority. This position will ideally commence January 1, 2018. The selection process will begin by June 1, 2017, and continue until the position is filled. To comply with the Government of Canada's reporting requirements, the University is obliged to gather information about applicants' status as either Permanent Residents of Canada or Canadian citizens. Applicants need not identify their country of origin or current citizenship, however, all applications must include one of the following statements:

"Yes, I am a citizen or permanent resident of Canada" OR "No, I am not a citizen or permanent resident of Canada".

Applications, including cover letter, statements of research and teaching interests, curriculum vitae, research

samples (published articles or other evidences of research contributions), evidence of teaching effectiveness, and names and contact information of 3 to 5 references, should be sent to Laurie Leblanc at leblanl@mcmaster.ca.

McMaster University's beautiful campus is at the north-west end of Hamilton on the western end of Lake Ontario, between the Niagara Escarpment, conservation lands, and the Royal Botanical Gardens. Hamilton, with a population of over 500,000, is a vibrant community with easy access to Toronto and the Niagara region. It is located at the northern tip of an ecological zone commonly called the Carolinian Forest that encompasses the southern-most portion of Ontario but occurs nowhere else in Canada. As a result, Hamilton is home to many unique species of plants and animals that only occur here because the summer climate approaches that of North and South Carolina in the United States.

McMaster University is strongly committed to employment equity within its community and to recruiting a diverse faculty and staff. The University encourages applications from all qualified candidates including women, persons with disabilities, First Nations, Metis and Inuit persons, members of racialized communities and LGBTQ-identified persons. If you require any form of accommodation throughout the recruitment and selection procedure, please contact the Human Resources Service Centre at (905) 525 9140, Extension 222-HR (22247).

Montana State University

Assistant Professor of Computer Science

Montana State University's Gianforte School of Computing in beautiful Bozeman, Montana invites applications for (1) an Assistant Professor of Computer Science and (2) various instructional positions.

The **desired start date** is August 15, 2018.

Application screening will begin November 1st, 2017 and continue until an adequate applicant pool is established or the position is filled. Candidates are welcome to submit applications at any time.

Candidates are asked to **apply online** at: <https://jobs.montana.edu/postings/9405>

For complete job announcements and application procedures, please visit <https://www.gsoc.montana.edu/opportunities.html>

Equal Opportunity Employer,
Veterans/Disabled.

Nanyang Technological University

Postdoc Research Fellow

We are looking for a postdoc researcher to work on big data driven intelligent transportation and urban computing.

Starting date: Immediately

Please refer to <http://www.ntu.edu.sg/home/limo/Postdoc-CSE-NTU-limo.pdf> for complete information.

Please contact Dr. Mo Li (limo@ntu.edu.sg) if you have interest.

National University of Singapore

Tenure-Track Faculty Positions in All Areas of Computer Science

The Department of Computer Science at the National University of Singapore (NUS) invites applications for tenure-track faculty positions in all areas of computer science. The Department enjoys ample research funding, moderate teaching loads, excellent facilities, and extensive international collaborations. We have a full range of faculty covering all major research areas in computer science and a thriving PhD program that attracts the brightest students from the region and beyond. More information is available at www.comp.nus.edu.sg/careers.

NUS is an equal opportunity employer that offers highly competitive salaries, and is situated in Singapore, an English-speaking cosmopolitan city that is a melting pot of many cultures, both the east and

the west. Singapore offers high-quality education and healthcare at all levels, as well as very low tax rates.

The Department is looking for candidates for all levels of tenured and tenure-track positions in any area of computer science. Candidates for senior positions should have an established record of outstanding, recognized research achievements, and thought leadership in his/her chosen area of computer science.

Candidates for Assistant Professor positions should demonstrate excellent research potential, and a strong commitment to teaching. Truly outstanding Assistant Professor applicants will also be considered for the prestigious Sung Kah Kay Assistant Professorship as well as the President Assistant Professor.

Application Details:

- Submit the following documents (in a single PDF) online via: <https://faces.comp.nus.edu.sg>
- A cover letter that indicates the position applied for and the main research interests



Middlebury

Tenure-Track Faculty Position in Computer Science

Middlebury College invites applications for a tenure-track faculty position in computer science, beginning in Fall 2018, with open specialization. For more information about the position and the application process see <http://apptkr.com/1065235>. To be assured full consideration, applications should be received by November 1, 2017.

An Equal Opportunity Employer, the College is committed to hiring a diverse faculty as we work to foster innovation in our curriculum and to provide a rich and varied educational experience to our increasingly diverse student body.

Professional Opportunities

- Curriculum Vitae
- A teaching statement
- A research statement
- Provide the contact information of 3 referees when submitting your online application, or, arrange for at least 3 references to be sent directly to csrec@comp.nus.edu.sg.
- Application reviews will commence immediately and continue until positions are filled
- Please submit your application by 31 January 2018

If you have further enquiries, please contact the Search Committee Chair, Weng-Fai Wong, at csrec@comp.nus.edu.sg

North Central College

Tenure-track position

The Computer Science Department at North Central College invites applications for a tenure-track position to begin September 2018. A PhD in computer science or a related field is required by the start date. We seek candidates with research interests in any area that complement our existing strengths. Candidates should have demonstrated potential for excellence in undergraduate teaching and mentoring, and must be committed to developing an active research program.

Founded in 1861, North Central College is a selective, comprehensive liberal

arts institution located 28 miles west of Chicago in Naperville, IL.

For more information, please visit:
<https://northcentralcollege.peopleadmin.com/postings/3899>

Review of applications will begin on September 15, 2017 and continue until the position is closed.

Northeastern University College of Computer and Information Science

Post Doctoral Research Associate at the Playable Innovative Technologies Lab

We are seeking a postdoctoral research associate who will be working on Game Analytics and Behavior Modeling, working in a multidisciplinary area that combines Artificial Intelligence, Data Science, Modeling and Game Research. This position is funded by NIH and DoD grants and will be focused on modeling human behavior using data collected through multiple games. One of these games would be Foldit (<http://fold.it>), which is a scientific discovery game; MarketPlace live (a team based educational marketing game), and Wuzzit Trouble (an educational game to teach kids Algebra). This project will be under supervision of two faculty members at CCIS, Northeastern University: Magy Seif El-Nasr (<http://www.northeastern.edu/magy>) and Seth Cooper (<http://sethcooper.net/>).

Postdoctoral research associates are expected to work under the supervision of Profs Cooper and Seif El-Nasr. We expect postdocs to also

supervise students working on the projects involved as well as assist the supervisors in developing proposals to fund subsequent projects involving the data or the games being investigated.

The position is currently and we will be accepting applications till the beginning of the Spring 2018.

The appointment will be for a year, but can be extended depending on available funding.

Qualifications:

- PhD in Computer Science or related area
- Be able to undertake substantial full-time research
- Be able to work under the supervision of a senior scholar
- Excellent verbal and written communication skills
- Experience in Machine Learning and Artificial Intelligence
- Motivated to publish and work collaboratively to write grants
- Experience in Reinforcement Learning and Inverse Reinforcement Learning is desirable
- Experience in game design and working with game data is desirable
- Proficiency in Matlab, R, programming language including: Java, C++, C#, Python or others is desirable

About our lab:

The PLAIT Lab (<http://www.northeastern.edu/games/>) has been formed in 2012 by members of the game design faculty in both College of Computer and Information Science as well as the College of Arts,

Professional Opportunities

Media and Design.

The lab engages in multidisciplinary research that combines creation and analysis, creativity and scientific research, mixing arts, engineering and science. Faculty in this multidisciplinary lab often collaborate on multiple projects. Funding for these projects come from different sources including NSF, NIH, IARPA, DARPA, and local foundations and businesses. We have a regular weekly seminar where faculty, graduate students and undergraduate students from several departments across campus interested in games research culminated, play games, listen to talks and discuss many interesting research ideas.

Northeastern University is in the heart of Boston and a world leader in experiential learning. In the past several years, Northeastern University has made a major commitment to interdisciplinary education and research in select fields with the goal of achieving international leadership. Northeastern University is a vibrant community of researchers who often collaborate on many projects across campus. There are many avenues provided by Northeastern to encourage and facilitate interdisciplinary collaboration and intellectual discussions among faculty and students in different departments and colleges. Post Doctoral research associate who will join our lab will have the opportunity to engage with faculty and students in the PLAIT Lab and around campus.

If interest, please submit the following:

- Cover letter
- Research Statement

- CV

Email these to magy@neu.edu and seth.cooper@gmail.com

Oklahoma State University

Assistant Professor Position

The Computer Science Department (<http://www.cs.okstate.edu/>) at Oklahoma State University (OSU) is seeking applications for one tenure-track Assistant Professor position beginning on August 15, 2018. For more detail and to apply, visit: http://cs.okstate.edu/Faculty_Search-2017-2018

Applications should be received by November 15, 2017.

Priority will be given to the area of Big Data and the related fields. An earned Ph.D. in Computer Science or a closely-related field from an accredited institution is required at the time of appointment.

Some consideration are: potential to

secure external funding, pursuing research collaboration with Departmental faculty as well as faculty in other departments on campus, and exploring joint research efforts with the industry at the local, state, and national levels.

A successful faculty candidate should be willing to teach from a multicultural perspective and should be willing to mentor ethnically and racially underrepresented students. Some



Postdoctoral Scholar, Software Systems Security Lab

Applications are invited for a Research Associate, Senior Research Associate, and two Postdoctoral Scholar positions on automatic software analysis, transformation, and security hardening in the Software Systems Security Lab, led by Prof. Dinghao Wu, at the Pennsylvania State University. Candidates must have a Ph.D. in computer and information science or a related field. We seek candidates with strong motivation, ability to conduct research with a proven track record, excellent project management skills and experience, excellent written and oral communication skills, ability to effectively interact with and mentor graduate students. Strong programming skill is required. Experience in any or all of the following is a plus: computer security, especially software, systems, and mobile security; program analysis and model checking, formal methods and verification; symbolic execution; type systems and logics; programming languages; compiler; binary code analysis; malware analysis; reverse engineering; and machine learning. The initial appointments will be for one-year with the excellent possibility of renewal. The review of applications will begin immediately and will continue until the position is filled. Contact Prof. Dinghao Wu <mailto:dwu@ist.psu.edu> for any questions. To apply, include a cover letter, CV, research statement, 1-3 sample publications, and 2-5 reference letters and email your application to <mailto:dwu@ist.psu.edu>.

Apply online at the following links Postdoctoral Scholar positions: <http://apptkr.com/1055231>, Research Associate: <http://apptkr.com/1064446>.

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

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

Professional Opportunities

current Departmental diversity statistics follow: percentage of underrepresented undergraduate students about 10% female, 5% African American, 5% Native American, and 5% Hispanic; percentage of underrepresented faculty: about 10% female and 10% African American. OSU is an AA/EEO/E-Verify Employer.

Qatar University

PostDoc in Cloud Computing

Qatar University and Simon Fraser University are seeking a Postdoctoral Research Scientist to work on a joint project in the field of cloud computing support for multimedia applications. The project aims to accelerate the development of next generation multimedia applications on cloud platforms. The position is based in Doha at Qatar University campus. The team is led by Dr. Aiman Erbad (Qatar University), in close collaboration with Drs. Jiangchuan Liu and Mohamed Hefeeda (Simon Fraser University, Vancouver, Canada).

Applicants need to have strong experience in large-scale multimedia systems, multimedia networking, and cloud-support for multimedia. Each applicant should have PhD in Computer Science or related field, with strong publication record, and excellent communication skills.

Applications will be reviewed immediately and the process will continue until the position is filled. Employment benefits include: Competitive tax-free salary, furnished accommodations or housing

allowance, annual round-trip air tickets for the candidate and his/her dependents, educational allowance for candidate's children, health insurance to candidate and family members, and annual leave, all in accordance with Qatar University Human Resource policies.

To apply, candidates should email the following information to Dr. Aiman Erbad (aerbad@qu.edu.qa): CV, 1 page research statement, and 2 references.

Santa Monica College

Computer Science and Information Systems (Csis) Instructor (Computer Sci)

Full-Time/Tenure Track

Salary: \$61,183 - \$127,482

Deadline: October 27, 2017

Please click on the link below to review the detailed job bulletin: <https://jobs.smc.edu/applicants/Central?quickFind=50794>

The new faculty member will be expected to teach in at least four of the following areas: databases, open source technologies, VB, JavaScript, C, C++, JAVA, data structures, computer architecture, and mobile and cloud computing. This assignment may include teaching day, evening, weekend or distance learning (hybrid) classes and using multiple teaching methodologies. EOE

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 disaster-responsiveness or medical imaging (e.g., research on networked applications that interface with microscope management software). Details on eligibility and how to apply at <http://cs.slu.edu/~esposito/Esposito-job-posting.pdf>

State University Of New York At Binghamton

Assistant Professor

The Computer Science Department at Binghamton University has two tenure-track assistant professor positions beginning Spring 2018.

Applicants should have a Ph.D. in Computer Science or related discipline, a strong research record, and a commitment to research and teaching.

Qualified applications are invited from candidates with specializations in any of the following areas: (1) Data Science/Data Analytics/Core Machine Learning, and (2) Artificial Intelligence (with concentrations on, but not limited to, knowledge generation/representation, and reasoning, robotics).

Professional Opportunities

Further details and application information are available at:

<http://binghamton.interviewexchange.com>.

Applications will be reviewed until positions are filled. First consideration will be given to applications received by October 20, 2017.

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

The Citadel, The Military College of South Carolina

Dean, School of Science & Mathematics

The Citadel invites nominations and applications for the position of Traubert Dean of the School of Science and Mathematics. Candidates must have an earned doctorate and be committed to promoting teaching and scholarship among students and faculty at a predominantly undergraduate institution.

If interested, please see complete position advertisement at www.citadel.edu/careers

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.

University of Albany

Tenure-Track Assistant Professor Positions in Digital Forensics and Cyber Security

The School of Business at the University at Albany, SUNY invites applications for multiple tenure-track Assistant Professor positions in Digital Forensics and Cyber Security beginning Fall 2018. Exceptional candidates at Associate level can also be considered. Candidates should have a Ph.D. in MIS, Computer Science, Information Science, or a related discipline with a strong background in the area of information security and/or digital forensics. The School has a very strong core of top research faculty in this area with over several million dollars in funded research this year.

For a complete job description and application procedures, visit <https://albany.interviewexchange.com/jobofferdetails.jsp?JOBID=78357>

The University at Albany is an EO/AA/IRCA/ADA Employer.

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

UCLA Engineering

HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Electrical Engineering Department

UCLA Electrical and Computer Engineering Department Professor

The Electrical and Computer Engineering Department in the Henry Samueli School of Engineering and Applied Science at the University of California, Los

Angeles (UCLA) is accepting applications for tenure-track faculty positions. Further information and an online application may be found at:

<https://recruit.apo.ucla.edu/apply/JPF03177>

University of Central Florida

Assistant or Associate Professor in Faculty Cluster for Cyber Security and Privacy

The University of Central Florida (UCF) has established a focus area in cyber security and privacy, as one of several interdisciplinary clusters established to strengthen its academic offerings and research mission. In support of this effort, we are recruiting faculty in the broad area of cyber security and privacy. We plan to hire one tenure-track assistant or associate professor for the UCF cyber security and privacy cluster. This position has a start date of August 8, 2018.

This will be an interdisciplinary position that will be expected to strengthen both the cluster and a chosen tenure home department, as well as a possible combination of joint appointments. A strong advantage of this position is the ability of the candidate to choose a combination of units from the cluster for their appointment. (See <http://www.ucf.edu/faculty/cluster/cyber-security-and-privacy/> for a complete list of all the units involved.) Both individual and interdisciplinary infrastructure and startup support will be provided with this new position.

The ideal junior candidates will have a strong background in cyber security and privacy, and be on an upward leadership trajectory in these areas. They will have research impact, as reflected in high-quality publications and the ability to build a well-funded research program. All relevant

technical areas will be considered. We are looking for a team player who can help bring together current campus efforts in cyber security or privacy. In particular, we are looking for someone who will work at the intersection of several areas, such as: (a) hardware and IoT security, (b) explaining and predicting human behavior, creating policies, studying ethics, and ensuring privacy, (c) cryptography and theory of security or privacy, or (d) tools, methods, training, and evaluation of human behavior.

Minimum qualifications include a Ph.D., terminal degree, or foreign degree equivalent from an accredited institution in an area appropriate to the cluster, and a record of high impact research related to cyber security and privacy, demonstrated by a strong scholarly and/or funding record. A history of working with teams, especially teams that span multiple disciplines, is a strongly preferred qualification. The position will carry a rank commensurate with the candidate's prior experience and record.

UCF is one of the nation's largest universities with a diverse student body of more than 64,000 students and has grown substantially in size, quality, diversity, and reputation in its first 50 years. Today, the university offers more than 200 degree programs at its main campus in Orlando. UCF is an economic engine, attracting and supporting industries vital to the region's future while providing students with real-world experiences that help them succeed after graduation. UCF's Orlando location also puts it at the center of the Florida High Tech Corridor. The corridor has an excellent

industrial base that includes software, defense, space, simulation and training, and a world-renowned entertainment industry. Adjacent to UCF is a thriving research park that conducts over \$2 billion in funded research, hosting more than 100 high-technology companies and UCF's Institute for Simulation and Training. The Central Florida area is designated by the State of Florida as the Center of Excellence in Modeling and Simulation. UCF also has an accredited medical school, which was established in 2006. UCF is a neighbor to large corporations, such as Disney, Harris Corporation, Lockheed Martin, Siemens, and many others, all of which have a strong interest in cyber security and privacy. Great weather, easy access to the seashore, one of the largest convention centers in the nation, and one of the world's best airports are just a few features that make Orlando an ideal location.

We encourage you to learn more about UCF at <http://www.ucf.edu/faculty>.

Candidates must apply online at <https://www.jobswithucf.com/postings/50404> and attach the following materials: a cover letter, curriculum vitae, teaching statement, research statement, and contact information for three professional references. In the cover letter candidates must address their background in cyber security and privacy, and identify the department or departments for their potential tenure home and the joint appointments they would desire. When applying, have all documents ready so they can be attached at that time, as the

system does not allow resubmittal to update applications.

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

For more information about these positions please contact the Cluster's Search Committee Chair, Gary T. Leavens, at Leavens@ucf.edu.

University of Central Florida

Cluster Lead, Cyber Security and Privacy Cluster

The University of Central Florida (UCF) recently established several interdisciplinary clusters to strengthen its academic offerings and research in key areas. In support of this effort, we are recruiting a lead for the cluster on cyber security and privacy. This position has a start date of August 8, 2018 or earlier. The position will carry a rank of associate or full professor, commensurate with the candidate's prior experience and record. The lead is expected to have credentials and qualifications similar to those expected of a tenured associate or full professor. In order to obtain tenure, the selected candidate must

have a demonstrated record of teaching, research and service commensurate with rank in the tenure department.

This will be an interdisciplinary position that will be expected to strengthen both the cluster and a chosen tenure home department, as well as a possible combination of joint appointments. A strong advantage of this position is the ability of the candidate to choose a combination of units from the cluster for their appointment. (See <http://www.ucf.edu/faculty/cluster/cyber-security-and-privacy/> for a complete list of all the units involved.) Both individual and interdisciplinary infrastructure and startup support will be provided with this new position.

The ideal candidate will have a strong background in cyber security and privacy and outstanding research credentials and research impact, as reflected in a sustained record of high quality publications and external funding. All relevant technical areas will be considered including: network security, cryptography, blockchains, hardware security, trusted computing bases, cloud computing, human factors, anomaly detection, forensics, privacy, and software security, as well as applications of security and privacy to areas such as IoT, cyber-physical systems, finance, and insider threats. A history of working with teams, especially teams that span multiple disciplines, is a strongly preferred qualification. A record of demonstrated leadership is highly desired, as we are looking for a leader to bring together all of the current campus efforts in cyber security

and privacy. This includes three cluster members already hired, as well as a pending hire for the 2017-18 academic year that will constitute the cluster's core expertise in this area. The cluster includes current UCF faculty members from Computer Science, Electrical and Computer Engineering, Industrial Engineering and Management Systems, Management, Political Science, Psychology, Statistics, the Institute for Simulation and Training, and affiliated members from several other departments.

Minimum qualifications include a Ph.D. from an accredited institution in an area appropriate to the cluster, and a record of high impact research related to cyber security and privacy demonstrated by a strong scholarly publication record and a significant amount of sustained funding.

A record of demonstrated leadership and a history of working with multidisciplinary teams are highly desired.

UCF is one of the nation's largest universities with a diverse student body of more than 64,000 students and has grown substantially in size, quality, diversity, and reputation in its first 50 years. Today, the university offers more than 200 degree programs at its main campus in Orlando. UCF is an economic engine, attracting and supporting industries vital to the region's future while providing students with real-world experiences that help them succeed after graduation. UCF's Orlando location also puts it at the center of the Florida High Tech Corridor. The corridor has an excellent industrial base that includes software, defense, space, simulation

Professional Opportunities

and training, and a world-renowned entertainment industry. Adjacent to UCF is a thriving research park that conducts over \$2 billion in funded research, hosting more than 100 high-technology companies and UCF's Institute for Simulation and Training. The Central Florida area is designated by the State of Florida as the Center of Excellence in Modeling and Simulation. UCF also has an accredited medical school, which was established in 2006. UCF is a neighbor to large corporations, such as Disney, Harris Corporation, Lockheed Martin, Siemens, and many others, all of which have a strong interest in cyber security and privacy. Great weather, easy access to the seashore, one of the largest convention centers in the nation, and one of the world's best airports are just a few features that make Orlando an ideal location. We encourage you to learn more about UCF at <http://www.ucf.edu/faculty> and the College of Engineering and Computer Science at <http://www.cecs.ucf.edu>.

Candidates must apply online at <http://www.jobswithucf.com/postings/50044> and upload the following materials at the time of application: a cover letter, curriculum vitae, teaching statement, research statement, and contact information for three professional references. In the cover letter, candidates should address their background in cyber security and privacy, and identify the department for their potential tenure home and any joint appointments they would desire.

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

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

Questions regarding this search can be directed to the search committee chair, Gary T. Leavens, at Leavens@ucf.edu.

University of Colorado Colorado Springs

Dean - College of Engineering & Applied Science

The University of Colorado Colorado Springs (UCCS) is accepting applications for Dean of the College of Engineering & Applied Science (EAS). For further information about UCCS and details about the position and application process, please visit us at www.cu.edu/cu-careers

The Dean of EAS is the chief academic and administrative officer of the College and reports to the Executive Vice Chancellor for Academic Affairs. The Dean demonstrates strong leadership, management and development skills to support faculty in teaching, research, and service within the departments of Computer Science, Electrical and Computer Engineering, and Mechanical and Aerospace Engineering. The Dean leads with a clear vision of excellence in

engineering research and education and possesses excellent communication and interpersonal skills. The Dean will be able to promote and articulate the College's vision and mission within the College and the campus, and to external constituents in the public and private sector. The Dean must work collegially with fellow members of the Deans' Council and other senior university administrators to advance the mission of the University.

University of Colorado Denver

Research Associate, Comcast Media & Technology Center

This Research Associate position offers collaborative and independent research opportunities at The Comcast Media and Technology Center (CMTC) at University of Colorado Denver. Through a unique blending of design, engineering, and technology, the CMTC's central purpose is to foster a creative environment.

To learn more/apply, visit:

<https://cu.taleo.net/careersection/jobdetail.ftl?job=07402&lang=en>

The University of Iowa

Faculty Position: Henry B. Tippie Chair in Business Analytics (Tenure Track)

The Department of Management Sciences is recruiting for a tenure-track position at the rank of full professor in business analytics beginning August 15, 2018. Areas of interest

Professional Opportunities

include but are not limited to data-driven research in machine learning, data science, statistics, optimization, and transportation. A Ph.D. in Information Systems, Computer Science, Management Science, Informatics/ Information Sciences, Statistics, or a related field is required. The successful candidate will be a recognized international leader in business analytics with an exemplary research track record. The chair will be expected to produce research that will have significant influence on their field. The Department of Management Sciences is a leader in business analytics research, and the chair will be expected to initiate new projects and collaborations to add or expand analytics research specializations at the University of Iowa. Candidates should have an established record of high-quality teaching at the undergraduate and graduate level and of mentoring graduate students.

The Department of Management Sciences offers undergraduate and doctoral programs in Business Analytics and Information Systems (BAIS). The Department also offers Graduate Certificate and Masters of Science programs in Business Analytics and a specialization in Analytics in the Fulltime MBA program. Further, extensive collaborative opportunities are available with faculty and doctoral students in other departments and interdisciplinary programs such as the University of Iowa Informatics Initiative and the Applied Mathematics and Computational Sciences program.

Iowa City is great place to live and was ranked #3 best college town in America by the Fiscal Times. It is a lively, cosmopolitan,

pedestrian-friendly small town that is bustling with arts, culture, restaurants, music, and Big Ten sports. The Tippie College of Business is consistently ranked among the country's top business programs.

Applicants will be screened on an ongoing basis. To apply, please log on to our website, <http://jobs.uiowa.edu/jobSearch/faculty/> and reference Requisition # 71370. Applicants should submit a cover letter, CV, statement of research interests, statement of teaching interests, names for at least three letters of recommendation, and 1-3 research papers online. Salary is competitive and commensurate with qualifications. Screening will begin on September 15, 2017; applications will be considered until the position is filled. Questions should be sent to the chair of the recruiting committee Barrett Thomas (barrett-thomas@uiowa.edu).

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual. Women and minorities are encouraged to apply for all employment vacancies.

University of Maryland

Assistant Clinical Professor of Machine Learning, Data Analytics and/or Cybersecurity

The First-Year Innovation & Research Experience (FIRE) is a major initiative at the University of Maryland, College Park. FIRE provides first-year students authentic research experience, broad mentorship and institutional connections that impact academic success, personal resilience and professional development. The FIRE program is seeking an individual to serve as the Research Educator (formal title: Assistant Clinical Professor) for an innovation and research stream to begin in January 2018.

Research Educators work in collaboration with stream-affiliated faculty members to design and implement the group research agenda. Research Educators coordinate with instructional faculty to oversee research operations including student research progress, infrastructure maintenance as well as management of the fiscal budget. The position empowers the individual to develop a strong portfolio of experience in technical leadership, operational planning, curriculum development, academic instruction and mentorship and research group management.

The Research Educator will lead a new FIRE innovation and research stream focused on the practices of machine learning, data analytics and/or cybersecurity.

The Research Educator position will be supported from January 2018 through

Professional Opportunities

December 2020 (3 years) contingent on positive annual reviews (each December 2018 & 2019) and available funding. The position co-reports to the Director of First-Year Research Programs in the Office of the Provost and Senior Vice President as well as the stream affiliated faculty members.

More information about the FIRE program is available at the FIRE website at: <http://fire.umd.edu/>

More information about this position and a direct link to apply is available at: <http://fire.umd.edu/hiring.html>

To apply for this position, you will need to submit the following documents: a cover letter; a curriculum vitae; a list of three professional references including names, addresses and telephone numbers.

The University of Maryland, College Park, actively subscribes to a policy of equal employment opportunity, and will not discriminate against any employee or applicant because of race, age, sex, color, sexual orientation, physical or mental disability, protected veteran status, religion, ancestry or national origin, marital status, genetic information, political affiliation, and gender identity or expression. Minorities, Women, Protected Veterans and Individuals with Disabilities Are Encouraged to Apply.

University of Minnesota - Twin Cities

Assistant Professor - Data Analytics for Precision Agriculture

Department of Bioproducts and Biosystems Engineering

The University of Minnesota invites applications for a 9-month tenure-track assistant professor position in the broader area of data analytics for precision agriculture with research and teaching (50%/50%) responsibilities.

For a full position description and to apply online: <https://humanresources.umn.edu/jobs>. Enter Job ID 318385.

applications from qualified women and members of groups underrepresented in science. We are an Equal Opportunity/Affirmative Action/ADA employer firmly committed to fostering ethnic, racial, and gender diversity in our faculty.

We invite applications for tenured or tenure-track positions at the Assistant, Associate, and Full Professor level. Candidates are expected to have strong potential for establishing a competitive externally funded research program. The successful candidate will also be expected to teach undergraduate and/or graduate courses in these areas. For more detailed information about the positions, visit our website at <http://engineeringcareers.missouri.edu/>

Qualifications: Applicants should have an earned a PhD in engineering or a related field. Those with relevant postdoctoral experience are particularly encouraged to apply.

Closing Date: Applications will be reviewed as received and will continue until the positions are filled.

Application: Applicants should submit a CV, a research plan, a teaching statement and a list of three to five professional references electronically to <http://hrs.missouri.edu/find-a-job/academic/index.php>. Inquiries can be directed to Sheila Grant, Associate Dean of Research, College of Engineering, University of Missouri, email: GrantSA@missouri.edu.

University of Missouri

Assistant, Associate, Full Professors in Big Data Analytics

Under the new leadership of Dean Elizabeth Loba, the College of Engineering at the University of Missouri is in the process of hiring approximately 40-50 new faculty in the area of Big Data Analytics, Biomedical Innovations, and Sustainability (Food, Energy, Water, and Smart Cities). These new hires will have the potential to be joint hires with the other colleges/schools at the University of Missouri (MU). MU offers a rich environment for collaboration with other faculty in Arts & Sciences, Health Professions, Medicine, Nursing, Veterinary Medicine, and Agriculture, Food and Natural Resources. MU specifically invites and encourages

Professional Opportunities

The University of Missouri is a Tier I research institution and one of only 60 public and private U.S. universities invited to membership in the prestigious Association of American Universities. Missouri was founded in 1839 in Columbia as the first public university west of the Mississippi River. Today, with an enrollment of more than 35,000 students, 13,000 full-time employees and 300,000 alumni, Mizzou is a \$2.2 billion enterprise and an important investment for the state and nation.

University of New Orleans

Assistant Professor

The Department of Computer Science at the University of New Orleans (UNO) invites applications for one tenure-track Assistant Professor position starting in Spring 2018. Strong preference will be given to the broad area of cybersecurity and privacy, and to candidates who complement current areas of strength.

A Ph.D. in computer science, or a closely related field is required for appointment; successful applicants must possess a record of research excellence, and demonstrate strong teaching commitments to graduate and undergraduate courses. Applications will be evaluated on a rolling basis, starting Sep 15, 2017 until the position is filled.

UNO is a Carnegie Higher Research institution located in the vibrant and fast-growing city of New Orleans. Over the last decade, the metro area has experienced a strong IT growth, and computer science

enrollment has doubled over five years. The Department hosts two Board-certified research centers and has a strong record of federal, state, and private research funding.

Applicants should email a resume, transcripts and three recommendation letters to: search@cs.uno.edu.

UNO is an Affirmative Action/Equal Employment Opportunity employer. Women, ethnic minorities, veterans and persons with disabilities are encouraged to apply.

University of North Carolina at Chapel Hill

Open Rank Tenure-Track Faculty Position - Sociotechnical Data Science

The *School of Information and Library Science (SILS)* at the University of North Carolina at Chapel Hill (the iSchool at Carolina) invites applications for a tenure/tenure-track faculty position in sociotechnical data studies and human-centered data science with a starting date of July 1, 2018. Candidates at all ranks are welcome to apply.

Research areas include, but are not limited to:

- Data ethics, law, and policy, including security, privacy and society
- Human-data interaction and sociotechnical perspectives on data work
- Data-oriented design, infrastructure, and theory

- Computational science (including computational social science, computational biology, as well as other computational scientific disciplines)
- Data science methods (from machine learning to human-computer interaction)

An earned doctorate is required at the time of employment. Degrees can be in any appropriate discipline. Candidates should provide evidence of research and teaching excellence, and potential for leadership in their area of expertise. Salary and rank will be commensurate with qualifications.

Review of applications will begin **October 1, 2017** and continue until the position is filled. Applications should include:

- A cover letter that articulates your interest in the position and your anticipated fit within SILS.
- Research statement.
- Teaching statement.
- Names and contact information of four references.

For questions, please contact Susan Sylvester (ssylvest@email.unc.edu)

View the official job posting and submit applications at <http://unc.peopleadmin.com/postings/123185>

The University of North Carolina at Chapel Hill is an equal opportunity employer that welcomes all to apply, including protected veterans and individuals with disabilities.

University of Oregon

Assistant Professor

The University of Oregon's Computer and Information Science (CIS) Department invites applications for two tenure-track faculty positions at the rank of Assistant Professor, to begin in September 2018. We seek candidates specializing in high-performance computing or data science. We are especially interested in scholars who will enhance/complement the department's existing strengths in these areas. Applicants whose research addresses security and/or privacy issues in these sub-disciplines are of particular interest.

CIS is a diverse and growing department with strengths in networking and distributed systems, data science, and high-performance computing. We offer a stimulating, friendly environment for collaborative research both within the department, which expects to grow substantially in the next few years, and with other units on campus; for example, the department plays a key role in the Knight Campus for Accelerating Scientific Impact. The department hosts two interdisciplinary research centers, the **Center for Cyber Security and Privacy** and the **NeuroInformatics Center**. Successful candidates have access to a new, state-of-the-art high-performance computing facility. CIS is part of the College of Arts and Sciences and is housed within the Lorry Lokey Science Complex. The department offers B.S., M.S. and Ph.D. degrees. More information about the department, its programs and faculty can be found at <https://cs.uoregon.edu/>.

Applicants must have a Ph.D. in computer science or closely related field, a demonstrated record of excellence in research, and a strong commitment to teaching. A successful candidate will be expected to conduct a vigorous research program and to teach at both the undergraduate and graduate levels. Additionally, successful candidates will support and enhance a diverse learning and working environment. Salary is competitive.

Candidates are asked to apply online at <https://academicjobsonline.org/ajol/jobs/9499> by submitting a cover letter, a curriculum vitae, a research statement, a teaching statement, and the contact details for a minimum of three referees, by 15 December 2017, or until the post has been filled. If you are unable to use this online resource, please contact faculty.search@cs.uoregon.edu to arrange alternate means of application submission.

The University of Oregon is dedicated to the goal of building a culturally diverse and pluralistic faculty committed to teaching and working in a multicultural environment and strongly encourages applications from minorities, women, and people with disabilities. Applicants are requested to include in their cover letter information about how they will further this goal. In particular, candidates should describe previous activities mentoring minorities, women, or members of other underrepresented groups.

The University of Oregon is one of only two Pacific Northwest members of the Association of American Universities and



Biostatistics and Data Science Assistant/ Associate/ Full Professor

University of Texas Health Science Center at Houston (UTHealth) School of Public Health Biostatistics Department is pleased to invite applications for immediate opening of multiple faculty positions in Data Science. These positions will be tenure-track and open rank (Assistant/Associate/Full Professor) faculty positions. These positions are expected to perform research in big biomedical/health science data mining, modeling, analysis, prediction and visualization, as well as contribute to the development of our new Data Science graduate programs. Demonstrated evidence of excellent communication and collaboration skills is essential. Previous research experience in Big Data management, data mining, machine learning, natural language processing, large-scale optimization, unstructured data processing/analysis, electronic health records, and high-performance computing is highly desirable.

Qualifications: Candidates must have a Ph.D. or its professional equivalent in data science, computer science, statistics, biostatistics, engineering, computational mathematics or other related disciplines. Applicants must have a demonstrated record of outstanding research work, excellent teaching performance and recognized leadership in the data science field.

The School of Public Health's main campus is in the Texas Medical Center that is home to the UTHealth McGovern Medical School, the University of Texas MD Anderson Cancer Center, Baylor College of Medicine and the UTHealth School of Biomedical Informatics. The School also has 5 campuses across Texas (Austin, Brownsville, Dallas, El Paso and San Antonio) that are each affiliated with a medical school. These locations and affiliations provide unprecedented opportunities for leading outcomes-based research across the full and multifaceted spectrum of diversity. It is anticipated that this direction will lead to improvement in the public health of the state, nation and world.

Review of applications will begin immediately and continue until the position is filled. Interested candidates must apply online through the access of the following link: <https://jobs.uth.tmc.edu/applicants/Central?quickFind=116860> and include a cover letter describing their qualifications and interests along with their curriculum vitae, and contact information for three professional references. Any inquiries should be directed to: Search Committee for Data Science, c/o Ms. Maricé Barahona, Department of Biostatistics, UTHealth School of Public Health, The University of Texas Health Science Center at Houston, 1200 Pressler Street, E-835, Houston, Texas 77030, FAX: 713-500-9440, Email: Marice.Barahona@uth.tmc.edu

UTHealth is an EEO/AA employer. UTHealth does not discriminate on the basis of race, color, religion, gender, sexual orientation, national origin, genetics, disability, age, or any other basis prohibited by law. EOE/M/F/Disabled/Vet. Minority and women are strongly encouraged to apply. This is a security-sensitive position and thereby subject to Texas Education code 51.215. A background check will be required for the final candidate.

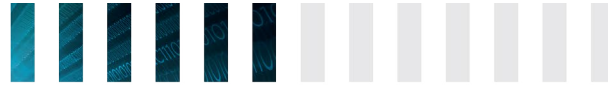
holds the distinction of a “very high research activity” ranking in the Carnegie Classification of Institutions of Higher Education. The UO has more than 20,000 undergraduate and 3,600 graduate students representing all 50 states and nearly 100 countries. The UO’s beautiful, 295-acre campus features state-of-the-art facilities in an arboretum-like setting. The UO is located in Eugene, a vibrant city of 157,000 with a wide range of cultural and culinary offerings, a pleasant climate, and a community engaged in environmental and social concerns. The campus is within easy driving distance of the Pacific Coast, the Cascade Mountains, and Portland.

University of Pennsylvania

CIS Lecturer Position 2018

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

The position entails designing and teaching introductory courses in programming, computer systems, and discrete mathematics, and in embedded systems programming, software engineering, parallel computing, and other systems-related topics. The target start date is July 1, 2018. Applications will be evaluated on a rolling basis until the position is filled.



Postdoctoral Fellowships at the Institute for Quantum Computing

The Institute for Quantum Computing is inviting applications for postdoctoral positions in all aspects of quantum information processing, bridging areas from fundamental theory to physical implementations.

Quantum information science aims to develop transformational technologies that harness the power of quantum mechanics. The Institute for Quantum Computing (IQC) is a world-leading institute for research in quantum information at the University of Waterloo. IQC has 28 faculty members and growing, whose research programs span the areas of Applied Mathematics, Chemistry, Combinatorics & Optimization, Computer Science, Electrical & Computer Engineering, Physics & Astronomy, and Pure Mathematics. IQC members have the opportunity to interact with other research groups at the University, such as the Centre for Applied Cryptographic Research and the nearby Perimeter Institute for Theoretical Physics. New infrastructure, including an advanced nanofabrication and metrology centre, support an expansion of experimental research programs at IQC. We are based in the new Mike and Ophelia Lazaridis Quantum-Nano Centre, a state-of-the-art facility at the heart of the University of Waterloo campus, which provides unprecedented opportunities for research, collaboration and innovation.

We seek promising candidates to help advance the understanding of the foundations of quantum information, to develop new quantum applications and algorithms, and to implement these ideas in laboratory experiments and engineered systems. A PhD and proven ability, or strong potential, for excellence in research is required.

For information on how to join IQC as a postdoctoral fellow, please visit the *Available positions* link at <https://uwaterloo.ca/institute-for-quantum-computing/>

The preferred deadline for receiving applications is November 1, 2017, but applications may be considered year-round. Candidates are also encouraged to visit the [NSERC website](#) to learn about the prestigious Banting Postdoctoral Fellowship. The deadline for the Banting Fellowship applications is September 20, 2017; qualified candidates should contact a potential supervisor immediately.

The University of Waterloo respects, appreciates and encourages diversity. We welcome applications from all qualified individuals including women, members of visible minorities, Aboriginal peoples and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.



Lecturer positions are for one year, renewable annually up to three years, at the end of which a promotion to Senior Lecturer can be considered. Successful applicants will find Penn to be a stimulating environment conducive to professional growth.

Apply for this position online at:
<https://facultysearches.provost.upenn.edu/postings/1186>

University of Pennsylvania

CIS Tenure or Tenure-Track Position

The School of Engineering and Applied Science at the University of Pennsylvania is growing its faculty by 33% over the next five years. As part of this initiative, the Department of Computer and Information Science is engaged in an aggressive, multi-year hiring effort for several tenure-track positions at the Assistant, Associate, and Full Professor levels, with an emphasis on junior appointments. Applicants must have a Ph.D. in Computer Science. We are looking for exceptional candidates in all areas of computer science, with special preference to candidates in Machine Learning and Data Science, and Computer Architecture.

We are especially interested in candidates whose interests are aligned with the school's strategic plan: www.seas.upenn.edu/PennEngineering2020

We seek individuals with stellar research achievement and potential, who will excel in teaching undergraduate and graduate courses and take a position of international leadership in defining their field of study. Leadership in cross-disciplinary collaborations is of particular interest. Successful applicants will find Penn to be a stimulating environment conducive to professional growth.

We seek individuals who embrace and reflect diversity in the broadest sense. To ensure full consideration, applicants are encouraged to apply by November 30th, 2017. However, applications will be accepted

until positions are filled. Please submit a cover letter, curriculum vitae, research statement, teaching statement, and names of 4 references. Other supporting documents are optional.

Apply for this position online at:
<https://facultysearches.provost.upenn.edu/postings/1187>

The University of Texas at Austin

Faculty Position: Department of Information, Risk, and Operations Management McCombs School of Business

The **McCombs School of Business** at the **University of Texas at Austin** invites applications for a tenure track faculty position in the Department of Information, Risk, and Operations Management starting in **Fall 2018**. We seek candidates with a rigorous research program that focuses on the development or the innovative use of **optimization methodologies that are driven by data** and motivated by challenges in business. A candidate's research may draw from one of a variety of research disciplines, including operations research, operations management, computer science, machine learning, econometrics, statistics or other related fields. We seek candidates with a strong commitment to high quality research and teaching, and who can contribute to our program in Business Analytics. Applicants should have a Ph.D. or expect to complete their degree before Fall 2018. We will also consider candidates with strong records in

teaching and in research who would qualify for a more senior level appointment.

The McCombs School, with its top-ranked faculty and educational programs, offers a stimulating and collegial environment for research and teaching. *The Information, Risk, and Operations Management* (IROM) Department offers courses and concentrations in the undergraduate, MBA, and PhD programs. The School's Supply Chain Management Center of Excellence, Center for Research in Electronic Commerce, The Kay Bailey Hutchison Center for Energy, Law and Business, Healthcare initiative and other research centers and initiatives provide opportunities for IROM faculty to collaborate with colleagues in other disciplines and to interact with industry.

As an Equal Opportunity Employer with a commitment to diversity, we want our applicant pool to be as diverse as possible. We welcome applicants from under-represented groups as well as applicants who have demonstrated, and will continue to demonstrate, a commitment to diversity in the academic environment.

Interested applicants should upload a curriculum vita, copies of up to three research papers, and a statement of research objectives and accomplishments to Interfolio using this link: <https://apply.interfolio.com/43152>. Applicants with teaching experience should also upload teaching evaluations. All applicants are required to use the Interfolio Recommendation Letter request system to request at least **three** confidential letters of recommendation.

Professional Opportunities

Applications and recommendation letters must be received by **December 8, 2017**.

The University of Texas at Austin, as an equal opportunity/affirmative action employer, complies with all applicable federal and state laws regarding nondiscrimination and affirmative action. The University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, national origin, age, marital status, sex, sexual orientation, gender identity, gender expression, disability, religion, or veteran status in employment, educational programs and activities, and admissions.