

2014 ACM Richard Tapia Celebration of Diversity in Computing Conference

TAPIA
The Strength of Diversity



**13 Years of Celebrating
Diversity in Computing**

February 5–8, 2014

Seattle, WA

www.tapiaconference.org

Table of Contents

Featured Speakers	1
Conference Sponsors	2
Meet Professor Richard Tapia	3
Welcome to the 2014 Tapia Conference	4
Schedule at a Glance	5
Daily Schedules	
Wednesday, February 5	7
Thursday, February 6	8
Poster Session	13
Friday, February 7	17
Saturday, February 8	23
2014 Richard Tapia Achievement Award	22
Committees	24
Tapia 2014 Supporters	25
Grand Hyatt Site Map	29

13 Years of Celebrating Diversity in Computing

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The 2014 ACM Richard Tapia Celebration of Diversity in Computing Conference is organized by the Coalition to Diversify Computing (CDC), sponsored by the Association for Computing Machinery (ACM), and presented by the Center for Minorities and People with Disabilities in Information Technology (CMD-IT). The conference is in cooperation with the IEEE Computer Society and the Computing Research Association.

This year's conference, the eighth meeting in a conference series that began in 2001, celebrates the technical contributions and career interests of diverse people in computing fields. Additionally, the conference strives to help all attendees—especially students—build vital connections that will serve them well both professionally and personally. The conference aims to provide an educational and supportive networking environment for underrepresented groups across the broad range of computing and information technology, from science to business to the arts to infrastructure.

The 2014 conference theme is “The Strength of Diversity” as the Tapia Conference celebrates the contributions to computing by members of broad and diverse communities. Further, the Tapia Conference uniquely supports and mentors diverse communities of students and professionals.

Diversity is often equated with affirmative action and other points of view rooted in social justice. Yet, the research in diversity shows that diverse groups perform better than other more uniformed groups. Companies with a diverse employee base tend to produce better financially. Overall, there are many strands of research showing unequivocally why diversity matters. That is the true Strength of Diversity: we are better when many points of views are included in our daily lives.

Some of the nation's leading researchers from industry, government and academia will give plenary presentations looking at the technical, social and global impacts of computing. Attendees will also have a chance to explore opportunities for both near-term research possibilities as well as long-term career paths from companies and research institutions at the forefront of computing. In the student research poster session, representatives from the next generation of computer scientists will showcase their interests and accomplishments. Other sessions will help both undergraduate and graduate students develop and hone their skills for success. There will also be time set aside for informal conversations and getting to know one another.

Featured Speakers

Thursday, February 6



8:30am-9:15am Plenary Speaker

Chieko Asakawa

*IBM Fellow at IBM Research - Tokyo
Accessibility in the Era of Cognitive Systems*



9:45am-10:30am Plenary Speaker

Dan Garcia

*Senior Lecturer at University of California at Berkeley
Transforming K-12 Computer Science:
The Beauty and Joy of Computing (BJC)*

Friday, February 7



8:30am-9:15am Plenary Speaker

Latanya Sweeney

*Professor of Government and Technology in
Residence at Harvard University
Transparency Establishes Trust*



9:45am-10:30am Plenary Speaker

James McLurkin

*Assistant Professor at Rice University
Distributed Algorithms for Multi-Robot Systems*



2:00pm-3:00pm Ken Kennedy Distinguished Lecture

Kathryn McKinley

*Principal Researcher at Microsoft
The Yin and Yang of Hardware Heterogeneity:
Can Software Survive?*



6:30pm Banquet Speaker

Marcus Mitchell

Engineering Director at Google

2014 Tapia Conference

The 2014 ACM Richard Tapia Celebration of Diversity in Computing Conference is possible because of the tremendous dedication and contributions of many organizations and volunteers from the computing community. We very much appreciate the significant support, time, and excellent input. We extend a sincere thank you to everyone, including our attendees, for making this conference possible.

Organizer

The Coalition to Diversify Computing (CDC)

www.cdc-computing.org

The Coalition to Diversify Computing is a joint organization of the ACM, IEEE-CS and CRA. The goal of CDC is to address the shortfall of highly trained workforce of scientists and engineers capable of meeting the needs in the broad area of computing. CDC projects target students, faculty and professionals with expressed intent of increasing the number of minorities successfully transitioning into computing-related careers in academia, industry, and national laboratories. The diverse membership of CDC from academia, industry, and national laboratories enables a variety of different perspectives and approaches to be utilized in achieving the aforementioned goals.

Sponsor

The Association for Computing Machinery (ACM)

www.acm.org

Founded in 1947, ACM is a major force in advancing the skills of information technology professionals and students worldwide. Today, over 80,000 members and the public turn to ACM for the industry's leading Portal to Computing Literature, authoritative publications and pioneering conferences, providing leadership for the 21st century.

Presenter

Center for Minorities and People with Disabilities in Information Technology (CMD-IT)

www.cmd-it.org

The Center for Minorities and People with Disabilities in Information Technology (CMD-IT) is a non-profit organization with a vision to contribute to the national need for an effective workforce in computing and IT through synergistic activities related to minorities and people with disabilities. The vision is realized through the mission to ensure that under-represented groups are fully engaged in computing and information technologies, and to promote innovation that enriches, enhances, and enables these communities, such that more equitable and sustainable contributions are possible by all communities. CMD-IT's projects are focused on professional development, community enrichment, and curriculum development.

In-Cooperation

The Computing Research Association (CRA)

www.cra.org

The Computing Research Association (CRA) is an association of more than 200 North American academic departments of computer science, computer engineering, and related fields; laboratories and centers in industry, government and academia engaging in basic computing research; and affiliated professional societies. CRA's mission is to strengthen research and advanced education in the computing fields, expand opportunities for women and minorities, and improve public and policymaker understanding of the importance of computing and computing research in our society.

The IEEE Computer Society

www.computer.org

The IEEE Computer Society traces its origins to the 1946 formation of the Subcommittee on Large-Scale Computing of the American Institute of Electrical Engineers (AIEE). Today, IEEE-CS offers its members many benefits including complimentary subscription to the Computer magazine, free online access to 300 computing and IT books, free online access to 350 distance learning course modules in more than 40 subjects including Java, Cisco, Sun, Microsoft, and more, and discounted subscriptions to more than two dozen periodicals.

Professor Richard Tapia



Honoring the contributions of Prof. Richard Tapia and celebrating the technical contributions and career interests of diverse people in all fields of computing.

The conference honors the many contributions of Dr. Richard A. Tapia, mathematician and professor in the Department of Computational and Applied Mathematics at Rice University in Houston, Texas. Dr. Tapia is internationally known for his research in computational and mathematical sciences and is a national leader in education and outreach programs. He has authored or co-authored two books and more than 100 mathematical research papers. In addition to his faculty positions, he is also Director of the Center for Excellence and Equity in Education.

Richard Tapia was born in Los Angeles to parents who emigrated from Mexico when they were children, seeking educational opportunities. He was the first in his family to attend college, earning his B.A., M.A., and Ph.D. degrees in mathematics from the University of California, Los Angeles. Due to his efforts, Rice University has received national recognition for its educational outreach programs, and the Rice Computational and Applied Mathematics Department has become a national leader in producing women and underrepresented minority Ph.D.s in the mathematical sciences.

In October 2011, Prof. Tapia received the National Medal of Science from President Barack Obama during a special ceremony at the White House. The medal is the highest national honor for a U.S. scientist, but it was not the first White House honor for Tapia. He received the inaugural Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring from President Bill Clinton in 1996, the same year he earned a presidential appointment to the National Science Board, the nation's highest scientific governing body.

Tapia's other honors include: election to the National Academy of Engineering (1992) for his seminal work in interior point methods; being the first recipient of the A. Nico Habermann Award from the Computing Research Association (1994) for outstanding contributions in aiding members of underrepresented groups within the computing community; the Lifetime Mentor Award from the American Association for the Advancement of Science (1997); and the establishment of a lecture series to honor Tapia and African-American mathematician David Blackwell at Cornell University (2000). He received the Hispanic Engineer of the Year Award from Hispanic Engineer Magazine in 1996, and was inducted into the Hispanic Engineer National Achievement Awards Conference Hall of Fame in 1997. Hispanic Engineer & Informational Technology Magazine also selected him as one of the 50 Most Important Hispanics in Technology and Business for 2004. That same year Dr. Tapia was inducted into the Texas Science Hall of Fame.

Dr. Tapia has been named one of 20 most influential leaders in minority math education by the National Research Council; listed as one of the 100 most influential Hispanics in the U.S. by Hispanic Business magazine (2008); and given the "Professor of the Year" award by the Association of Hispanic School Administrators, Houston Independent School District, Houston, Texas. In 2005, Tapia was elected to the Board of Directors for The Academy of Medicine, Engineering, and Science in Texas, or TAMEST, comprising the Texas members of the National Academy of Engineering, National Academy of Sciences and the Institute of Medicine. In 2009, Tapia received the Hispanic Heritage Award for Math and Science.

Welcome from the General Chair



The Tapia Committee would like to extend a warm welcome to the speakers, presenters, and attendees! It has been an exciting year of preparations for Tapia 2014. I would like to take this opportunity to personally thank the many volunteers for the significant time that went into developing an exceptional program and awarding many conference scholarships. I also want to acknowledge CMD-IT for providing the significant infrastructure that was put into place for this conference and future conferences.

In line with the goal of **making connections**, I encourage you to use your time at the conference to go beyond your comfort zone to introduce yourself to new people and identify common interests and backgrounds. Meet with speakers, panelists, poster presenters, workshop organizers, BoF organizers, and other participants. Make connections that extend beyond the conference.

I would like to thank our many supporters, including our platinum supporters – NSF, TRUST, Microsoft, Georgia Tech College of Computing, IAAMCS; our gold supporters – Motorola Solutions Foundation, Google, XSEDE/Blue Waters, Lawrence Livermore National Laboratory, Texas A&M Computer Science & Engineering, Virginia Tech, and University of California at Berkeley; as well as our Silver and Bronze supporters. Your support has made possible the awarding of over 200 scholarships! We very much appreciate your support.

I look forward to truly celebrating the diversity that exists within the field of computing and gaining **strength from our diversity!**

Annie Antón, Professor and Chair of the School of Interactive Computing, Georgia Institute of Technology

Welcome from the Program Chair



Welcome to the 8th installment of this wonderful conference. This year marks a new beginning for our community as we go to an annual format. We continue to emphasize what makes this a unique conference: the celebration of diversity in computing.

This year's program is a reflection of the growth of our conference. Once again, our invited speakers reflect diverse backgrounds, experiences, affiliations, ethnicities, genders, and races. The Doctoral Consortium has been moved to Saturday. We have increased the number of sessions organized by affiliated groups. And for the first time, we have three affiliated events that should have a big impact in our community: the CRA-W/CDC Mentoring Workshops, the CS High School Teachers Workshop, and the Code-a-Thon.

The community support for the conference has been amazing. When we decided to go to an annual format, we feared that the continuous, year-after-year support might be too much to ask from our, at times, fragmented community. Yet by most accounts, we are doing as well or better than previous years. We received over 40 submissions for BoFs, workshops, and panels. We received 22 applications for the Doctoral Consortium, 103 for the poster competition, and almost 500 scholarship applications. Overall, this is a tremendous participation from a community of students and professionals that want to celebrate diversity and connect with each other.

In closing, I want to thank the members of the Infrastructure and the Program committee for their work to put this conference together. Their names are listed at the end of the program. If you see them in the hallways, thank them profusely. They devoted their time and effort to create a stellar program. We hope that you are inspired by the great presentations, engage in enlightening conversations, and celebrate the diversity that makes us all unique members of one big family.

Manuel A. Pérez-Quñones, Associate Department Head for Graduate Studies & Associate Professor, Computer Science, Virginia Tech

**Wednesday
February 5, 2014**

10:00AM - 9:00PM

Room: Princessa Foyer

Registration

Conference Registration

1:00PM - 4:00PM

Rooms: Cayuse, Chinnok,
Sherman, Tolmie,
Washington

**CRA-W/CDC Mentoring Workshops
Undergraduate**

Room: Eliza Anderson
Amphitheater

Graduate

Room: Menzies

Mid-Career

3:00PM - 6:00PM

Room: Princessa I-II

Exhibits

Exhibitor Set-Up

4:00PM - 5:00PM

Room: Leonesa I-III

Orientation

Scholarship Recipient Orientation &
Newcomers Session

5:00PM - 6:30PM

Room: Leonesa I-III

Panel

Welcome Reception &
Microsoft Sponsored Fireside Chat

6:30PM - 9:30PM

Room: Princessa I-II

Exhibits

Dessert & Career Fair

**Thursday
February 6, 2014**

7:00AM - 5:00PM

Room: Princessa Foyer

Registration

Conference Registration

7:00AM - 8:00AM

Room: Leonesa Foyer

Breakfast

8:00AM - 8:30AM

Room: Leonesa I-III

Announcements

Welcome & Announcements
Annie Antón, General Chair

8:30AM - 9:15AM

Room: Leonesa I-III

Plenary Speaker

Chieko Asakawa, IBM Fellow at
IBM Research - Tokyo

9:15AM - 9:45AM

Break

9:45AM - 10:30AM

Room: Leonesa I-III

Plenary Speaker

Dan Garcia, Senior Lecturer at University
of California at Berkeley

10:30AM-11:00AM

Room: Leonesa Foyer

Break

11:00AM - 12:30PM

Room: Leonesa I-III

Workshops

Disrupting Diversity: Unleashing
Innovation, Execution and Speed through
Inclusion & Diversity

Room: Discovery A-B

Computing Your Success: Strategies for
Preparing Competitive Graduate School
and Fellowship Applications

Room: Eliza Anderson
Amphitheater

A Novel Approach to Visual Analytics for
Massive Amounts of Unstructured Data

12:30PM - 2:00PM

Room: Leonesa I-III

Lunch with Supporters

2:00PM - 3:30PM

Room: Leonesa I-III

Workshop

Networking is Not Optional:
How to Do It and Have Fun Along the Way

2:00PM - 3:30PM

Room: Eliza Anderson
Amphitheater

Panels

Undergraduate Research: Making the
Most of a Summer Experience

Room: Portland A-B

Diversity Among Hispanics -
Who Are We and How Can We Get
Out of the Shallow End?

Room: Discovery A-B

Leadership Lessons for a
Sustained Success

3:30PM - 4:00PM

Room: Leonesa Foyer

Break

4:00PM - 5:00PM

Room: Princessa I-II

Career Fair & Networking

5:00PM - 5:30PM

Room: Stevens

Private Reception for Poster Presenters
(Invitation Only)

5:30PM - 7:30PM

Room: Leonesa I-III

Poster Session & General Reception

7:30PM - 8:15PM

Room: Discovery A-B

Birds of a Feather

Timing is an Art

Room: Menzies

AccessComputing - Opportunities for
Students with Disabilities

Room: Eliza Anderson
Amphitheater

Hispanics in Computing Community

Room: Portland A-B

First Generation College Students
and Diversity in Computing

8:15PM - 9:00PM

Room: Discovery A-B

Birds of a Feather

The Power of Communities

Room: Eliza Anderson
Amphitheater

Computing for Disasters

Room: Portland A-B

Computer Security

**Friday
February 7, 2014**

7:00AM - 5:00PM <i>Room: Princessa Foyer</i>	Registration Conference Registration
7:00AM - 8:00AM <i>Room: Leonesa Foyer</i> <i>Room: Bluwett Suite</i>	Breakfast General Breakfast Supporter Breakfast (By Invitation Only)
8:00AM - 8:30AM <i>Room: Leonesa I-III</i>	Announcements Manuel Pérez-Quiñones, Program Chair
8:30AM - 9:15AM <i>Room: Leonesa I-III</i>	Plenary Speaker Latanya Sweeney, Professor of Government and Technology in Residence at Harvard University
9:15AM - 9:45AM	Break
9:45AM - 10:30AM <i>Room: Leonesa I-III</i>	Plenary Speaker James McLurkin, Assistant Professor at Rice University
10:30AM - 11:00AM <i>Room: Leonesa Foyer</i>	Break
11:00AM - 12:30PM <i>Room: Discovery A-B</i>	Workshop The \$10M Plan: Increasing Graduate Funding and Diversity in Computing
Room: Portland A-B	Panel New Diversity Interventions for the Tech Workforce & Entrepreneurs

Room: Eliza Anderson Amphitheater	Panels Building a Career for You: An Improvisational Art and Practice
Room: Leonesa I-III	In the Cloud: Challenges and Opportunities
12:30PM - 2:00PM <i>Room: Leonesa I-III</i>	Networking Lunch
2:00PM - 3:00PM <i>Room: Leonesa I-III</i>	Plenary Speaker Ken Kennedy Distinguished Lecture Kathryn McKinley, Principal Researcher at Microsoft
3:00PM - 3:30PM <i>Room: Princessa Foyer</i>	Break
3:30PM - 4:30PM <i>Room: Princessa I-II</i>	Career Fair Last opportunity to obtain stamps to complete your passport.
4:30PM - 5:00PM <i>Room: Eliza Anderson Amphitheater</i>	Announcements Town Hall Discussion
5:00PM - 6:00PM <i>Room: Stevens</i>	Reception VIP Reception (Invitation Only) For supporters and conference organizers.
6:30PM-11:00PM <i>Room: Leonesa I-III</i>	Banquet Banquet & Dancing Banquet Speaker: Marcus Mitchell, Engineering Director at Google

**Saturday
February 8, 2014**

8:00AM - 5:00PM Doctoral Consortium <i>Room: Bluwett Suite</i>	The Doctoral Consortium is a one-day workshop that provides an opportunity for doctoral students to discuss and explore their research interests with a panel of established researchers in computing. (By invitation only)
Code-a-thon <i>Room: Leonesa III</i> <i>Sponsored by Motorola Solutions Foundation & TRUST</i>	The Code-a-thon will give participants an opportunity to have hands on experience with coding in various computing focus areas including cybersecurity, mobile applications, and parallel processing. (By invitation only)
Workshop High School Teachers Workshop <i>Room: Tolmie</i> <i>Sponsored by NSF</i>	The High School Teachers Workshop is dedicated to providing professional development to High School Computer Science Teachers. (By invitation only)

8:00AM - 12:00PM ARTSI Robotics Competition <i>Room: Princessa I-II</i> <i>Sponsored by IAAMCS</i>	During the robotics competition's multiple events, teams of students will program their Calliope2SP robots using the Tekkotsu open source robotics application development framework to perform perception, navigation, and manipulation tasks. (By invitation only)
9:00AM - 12:00PM University of Washington CSE Tour and Information Session <i>Room: Grand Hyatt Lobby</i> <i>Sponsored by University of Washington, Computer Science and Engineering Department</i>	This session is for students who are considering graduate school and want to learn about CS programs at the University of Washington. (By invitation only)
1:00PM - 5:00PM IAAMCS Distinguished Fellowship Writing Workshop <i>Room: Eliza Anderson Amphitheater</i> <i>Sponsored by the Institute for African-American Mentoring in Computing Sciences</i>	This workshop provides students with guidance writing competitive applications for summer internships, graduate school and or/external funding. (By invitation only)

Tapia 2014 Program

Wednesday
10:00am-5:00pm

- 10:00am** **Conference Registration** - Room: Princessa Foyer
-
- 1:00pm – 4:00pm** **CRA-W/CDC Mentoring Workshops**
Undergraduate Rooms: Cayuse, Chinnok, Sherman, Tolmie, Washington
Graduate Room: Eliza Anderson Amphitheater
Mid-Career Room: Menzies
-
- 4:00pm – 5:00pm** **Scholarship Recipient Orientation & Newcomers Session** - Room: Leonesa I-III
-
- 5:00pm – 6:30pm** **Welcome Reception** - Room: Leonesa Foyer
Microsoft-Sponsored Fireside Chat - Room: Leonesa I-III

Wednesday
5:30pm-6:30pm

*Microsoft-Sponsored Fireside Chat:
Discussing the Hard-hitting Problems*

Dr. Qi Lu (Microsoft), **Stuart Feldman** (Google), **Pardha Pyla** (Bloomberg), **Andres Monroy-Herandez** (Microsoft Research)
 Moderator: **Valerie Taylor** (Texas A&M)

Biographies



As executive vice president of Microsoft's Applications and Services Group, **Dr. Qi Lu** leads Microsoft's business across productivity, communications, search and other information services. He sets the vision, strategy, and overall direction of the Applications and Services group, and is responsible for all of the research and development teams across Microsoft Office, Office 365, SharePoint, Exchange, Yammer, Lync, Skype, Bing, Bing Apps, MSN and the Advertising platforms and business group. Prior to joining Microsoft, Dr. Lu spent 10 years as a Yahoo! senior executive. Before joining Yahoo!, Dr. Lu worked as a research staff member at IBM's Almaden Research Center.

Dr. Stuart Feldman serves as Vice President of Engineering of Google, where he is responsible for engineering activities at Google's offices in the eastern half of the Americas. Before Google, he worked at IBM for eleven years. He served as Vice President for Computer Science in IBM Research, where he drove the long-term and exploratory worldwide science strategy in computer science and related fields, led programs for open collaborative research with universities, and influenced national and global computer science policy. Dr. Feldman is best known for his creation of Make, while he was a Computer Science Researcher at Bell Labs.



Dr. Pardha Pyla is a designer and user experience team lead at Bloomberg L. P., New York. He is the co-author of the award-winning textbook on user experience titled *The UX Book: Process and Guidelines for Ensuring a Quality User Experience*.

Formerly he was an academic researcher, teacher, and consultant in user experience and design. He has received numerous awards in recognition of his achievements in design, teaching, and service. Dr. Pyla has a bachelors degree in Electronics and Communications Engineering from Nagarjuna University (India), masters degrees in both Computer Engineering and Computer Science, and a Ph.D. in Computer Science from Virginia Tech.



Andrés Monroy-Hernández is a researcher at Microsoft Research where he studies how social computing systems can support creative and civic engagement. His research has been featured in the New York Times, CNN, Wired, and has received awards

from Ars Electronica, and the MacArthur Foundation DML Competition. Andrés was named one of the 35 Innovators under 35 by the MIT Technology Review in Spanish, and one of the "most influential Latinos" by CNET. He holds a PhD from the MIT Media Lab, and a BS from the Tec de Monterrey in Mexico.

Abstract

The Microsoft-sponsored Fireside Chat provides a diverse perspective on the hard-hitting issues that are currently being addressed in industry. The chat includes the perspectives from different companies. The panel will start with a presentation from Qi Lu, followed by input from the other panelists. Time will be allocated for questions from the panel moderator and the audience.

Wednesday
6:30pm-9:30pm

Career Fair & Dessert

Room: Princessa I-II

The Career Fair includes representatives from our supporters. Take an opportunity to discuss career options with the representatives and receive a stamp for your passport.

Thursday
8:30am-9:15am

Plenary Speaker

Chieko Asakawa, IBM Fellow at IBM Research - Tokyo

Accessibility in the Era of Cognitive Systems

Room: Leonesa I-III

Biography

Chieko Asakawa helps the visually impaired enjoy technological advancement in interface and multimedia content. Her groundbreaking work in digital Braille and voice browsers are not only helping the blind community in Japan, but made available in the U.S. Europe and throughout Asia. Chieko is also a 2011 ABI Women of Vision Leadership award winner and continues to provide breakthrough technologies at IBM, where she joined in 1985 and became an IBM Fellow in 2009. Her work has been vital to the disability community and tackles accessibility issues through continued research.



Abstract

Accessibility technologies have been empowering people with disabilities every day by providing access to massive information resources and various online services, which are often inaccessible in the physical world. IBM Research has played an important role in this evolution since the early days of personal computers. These days, information technologies are reaching the point of smart machines called "cognitive systems", which can see, listen, and think in ways machines never approached. These systems will emerge as next-generation accessibility technologies can enhance the sensory and cognitive abilities of persons with disabilities and senior citizens. In this presentation, she will first review the history, then share her experiences as a blind researcher, and close with the role of accessibility in the era of cognitive systems.

Thursday
9:45am-10:30am

Plenary Speaker

Dan Garcia, Senior Lecturer at University of California at Berkeley

*Transforming K-12 Computer Science:
The Beauty and Joy of Computing (BJC)*

Room: Leonesa I-III

Biography

Dr. Dan Garcia is a Senior Lecturer with Security Of Employment (SOE = "tenured" teaching faculty) in the Computer Science Division of the EECS Department at the University of California, Berkeley, and joined the faculty in the fall of 2000. Dan received his PhD and MS in Computer Science from UC Berkeley in 2000 and 1995, and dual BS degrees in Computer Science and Electrical Engineering from MIT in 1990. He has won all four of the department's teaching awards, and holds the record for the highest teaching effectiveness ratings (6.7/7) in the history of the department's intro courses. He was chosen as an ACM Distinguished Educator in 2012.



Abstract

BJC was chosen as one of the initial pilots for a new, upcoming non-majors "Advanced Placement Computer Science: Principles" course to broaden participation in computing. The goal of the "CS10K" effort is to prepare 10,000 new high school CS teachers to teach the AP course by 2016. We were funded from the National Science Foundation to provide summer workshops for 100 HS teachers. This talk will introduce the AP CS Principles framework, our BJC course, the engaging Snap! (Build Your Own Blocks, based on Scratch) development environment, and some of the exciting things we are doing in the Computer Science Education group at UC Berkeley to move the needle and broaden participation in computing.

Thursday
11am-12:30pm

Workshop - Room: Leonesa I-III

Disrupting Diversity: Unleashing Innovation, Execution and Speed through Inclusion & Diversity

Christopher Clermont (CA Technologies)



Biography

Christopher Clermont, Principal for Global Inclusion & Diversity at CA Technologies, is responsible for designing experiences and emboldening workforce engagement of the company's long-term workplace and marketplace inclusion-related solutions. For over 10 years, Christopher has been supporting and advising private and public sector organizations in human capital disciplines, including diversity, inclusion, talent acquisition, organizational design, leadership, and culture. His other experiences include positions at Marriott, Penn State, Deloitte, and Dow Chemical. Christopher holds a Masters degree in Human Resource Management and Employee Relations, and a Bachelor of Science degree in Industrial & Organization Psychology from Pennsylvania State University.

Abstract

This workshop is focused on how to expand the traditional definition of diversity to ensure ALL employees are in the conversation, how to unleash and brand your personal diversity, how and when to "come out" in the workplace with respect to your aspects of diversity, how to build diverse teams, and how to leverage diversity as a business enabler. Businesses are struggling to uncover the ways that inclusion and diversity can be leveraged to foster new perspectives and innovations for their own customers – and ultimately to better compete within their respective markets. In the spirit of disruptive technology, this workshop aspires to disrupt traditional human capital efforts pertaining to inclusion and diversity and create innovative advances that will transform culture, engagement and teamwork.

Thursday
11am-12:30pm

Workshop - Room: Discovery A-B

Computing Your Success: Strategies for Preparing Competitive Graduate School and Fellowship Applications

Tiffany Simon

(Columbia University School of Engineering and Applied Science)



Biography

Dr. Simon currently serves as the Associate Dean of Graduate Student Affairs at Columbia Engineering. She earned her B.A. degree in communications from Rutgers University and Ed.D. in post-secondary education from Teachers College, Columbia University. Dr. Simon's research interests include access and diversity in higher education, graduate student socialization experiences, and persistence of underrepresented student populations in STEM disciplines. Dr. Simon presents workshops nationally on topics related to graduate school preparation and established the Women in Science and Engineering (WISE) conference and the Engineering Achievers in Graduate Education (EngAGE) weekend diversity recruitment program at Columbia University.

Abstract

An overview of the graduate school application and funding process will be provided during this workshop. Various components of the graduate school admissions process will be discussed including: selecting graduate programs, understanding admission requirements, preparing for the Graduate Record Examination, writing an effective personal statement, selecting recommendation providers, networking with faculty and current graduate students, and applying for fellowship programs. Workshop participants will have increased knowledge about the graduate admissions and funding process and an action plan outlining the steps necessary to prepare competitive graduate school admission and fellowship applications.

**Thursday
11am-12:30pm**

Workshop - Room: Leonesa I-III
A Novel Approach to Visual Analytics for Massive Amounts of Unstructured Data
Jeff Sale (UCSD San Diego Supercomputer Center)

Biography



Jeff Sale works full-time as research staff at the San Diego Supercomputer Center. He has conducted numerous visualization workshops at science and education conferences including Supercomputing, NECC, and Educause. Jeff teaches web programming part-time at Cuyamaca College and is pursuing a Master's degree in Education Technology at San Diego State University.

Abstract

Each day massive amounts of data are generated from a wide range of sources, becoming increasingly diverse and complex. The challenge for researchers is choosing where to begin their analyses. Visualization can serve as a tool for exploratory analysis and insight. It can be of tremendous advantage for researchers to get a 'big picture' of the raw data in order to help narrow the choice of analytical approaches. Traditional visualization tools and methods work well for some cases, but some types of non-traditional or 'unstructured' data require a new approach. In this workshop we will introduce participants to a new exploratory visual analytics method which uses a nested hierarchy of three-dimensional objects we call 'infoglyphs' to represent large amounts of complex multidimensional data.

**Thursday
2pm-3:30pm**

Panel - Room: Portland A-B
Diversity Among Hispanics - Who are We and How Can We Get Out of the Shallow End?
Manuel A. Pérez-Quiñones (Virginia Tech), **Carlos Evia** (Virginia Tech) **Jane Margolis** (University of California, Los Angeles), **Nayda G. Santiago** (University of Puerto Rico - Mayagüez), **Patricia Ordóñez** (University of Puerto Rico, Río Piedras)

Biographies



Dr. Manuel A. Pérez-Quiñones is Associate Department Head for Graduate Studies and Associate Professor of Computer Science at Virginia Tech. He is a member of the Center for Human-Computer Interaction and a former Associate Dean of the Graduate School. He is an active member of the Coalition to Diversify Computing and a former chair of the group. His research interests include human-computer interaction, personal information management, user interface software, and educational/cultural issues in computing. He holds a DSc from The George Washington University.

Professor of ECE Award, 2008 Distinguished Computer Engineer Award of the Puerto Rico Society of Professional Engineers and Land Surveyors, the 2008 HENAAC (Hispanic Engineer National Achievement Awards Conference) Education Award, the 2009 Distinguished Alumni Award of the UPR, Mayaguez, and the 2011 Women on the Forefront of the Puerto Rico Society of Professional Engineers and Land Surveyors.



Dr. Patricia Ordóñez is an Assistant Professor in the Department of Computer Science at the University of Puerto Rico Río Piedras. She received her B. A. in Hispanic and Italian Studies from Johns Hopkins University and her MS and PhD in Computer Science from the University of Maryland Baltimore County (UMBC). Her research centers on using visualization and data mining to improve the state of medicine in intensive care units. She is also developing assistive technologies for programming. She is a former National Science Foundation Graduate Research Fellow and she is passionate about diversifying the field of computer science.

Abstract

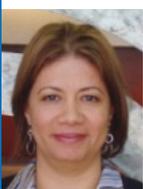
The internal diversity of Hispanics makes increasing participation in computing a daunting task. This panel addresses the complex issue of defining the terms Hispanic and Latino, and what it means to those of us trying to address the needs of the Hispanic community. In addition, we address preparatory privilege as defined by Jane Margolis in her book "Stuck in the Shallow End: Education, Race, and Computing." From this perspective, the panel will address whether current statistics concerning Hispanics in computing, which do not take into account preparatory privilege, are a good indicator of progress for our group. We will discuss whether most of the efforts addressing Hispanics in computing have been geared toward a more privileged population, whether this is sufficient, and whether more inclusive efforts are needed. Finally, the panel will present efforts to improve the situation of underrepresented Hispanics in computing and discuss their success.



Dr. Carlos Evia is an associate professor of Technical Communication in the Department of English at Virginia Tech, where he also directs the undergraduate program in Professional Writing. He conducts research on technology-based approaches for improving at-risk worker's workplace communication and training for the Virginia Tech Centers for Human-Computer Interaction and Innovation in Construction Safety and Health Research.



Dr. Jane Margolis is a Senior Researcher at the UCLA Graduate School of Education and Information Studies and is a social scientist who focuses on educational inequity and segregation. For the last 15 years she has studied the low numbers of females and students of color in computer science.



Dr. Nayda G. Santiago holds a B.S.E.E. degree from UPR, Mayaguez (1989), M.Eng.E.E. degree from Cornell University (1990), and Ph.D. degree in EE from Michigan State University (2003). She is an Associate Professor in ECE at UPR, Mayaguez. Nayda received the 2008 Outstanding

Thursday 2pm-3:30pm

Panel - Room: Eliza Anderson Amphitheater
Undergraduate Research: Making the Most of a Summer Experience
Monica Anderson (University of Alabama), **Shaundra Daily** (Clemson University), **Stephen Guy** (University of Minnesota), **Raheem A. Beyah** (Georgia Institute of Technology)



Biographies

Monica Anderson is an Associate Professor in Computer Science at The University of Alabama. Her research interests include multi-robot software architectures and hardware interfaces. She received her PhD in Computer Science and Engineering from the University of Minnesota and her BS in Computer Science from Chicago State University. She also worked as a software engineer for Northwest Airlines, IBM and Target Inc.



Shaundra Daily is an Assistant Professor in the School of Computing at Clemson University interested in Affective computing and STEM Education. She received her doctorate from the Massachusetts Institute of Technology, a B.S. and M.S. in Electrical Engineering from the Florida Agricultural and Mechanical University - Florida State University College of Engineering as well as a S.M. from the Massachusetts Institute of Technology.



Stephen J. Guy is an Assistant Professor of Computer Science at the University of Minnesota. His research focuses on the areas of interactive computer graphics (real-time crowd simulation, path planning, intelligent virtual characters) and multi-robot coordination (collision avoidance, sensor fusion, path planning under uncertainty). Stephen's work on motion planning has been licensed for use by Relic Entertainment,

EA, and other game companies; his work in crowd simulation has been recognized by best paper awards at international conferences. He received his Ph.D. in Computer Science in 2012 from the University of North Carolina – Chapel Hill.



Raheem Beyah is an Associate Professor in the School of Electrical and Computer Engineering at Georgia Tech where he leads the Communications Assurance and Performance Group. He received his Bachelor of Science in Electrical Engineering from North Carolina A&T State University in 1998. He received his Masters and Ph.D. in Electrical and Computer Engineering from Georgia Tech in 1999 and 2003, respectively. He received the NSF CAREER award in 2009 and was selected for DARPA's Computer Science Study Panel in 2010. He is a member of ASEE, a lifetime member of NSBE, and a senior member of ACM and IEEE.

Abstract

This panel focuses on disseminating information about participating in REUs (Research Experiences for Undergraduates). Discussion will center on the realities, logistics and benefits of REUs. A diverse set of professors that host REU students will answer scripted as well as ad-hoc questions from the audience. The goal is to motivate more students to apply for REUs either through the DREU program or REU sites.

Thursday 2pm-3:30pm

Workshop - Room: Leonesa I-III
Networking is Not Optional: How to Do It and Have Fun Along the Way
Amy Schapiro (CODE2040)



Biography

Amy Schapiro manages CODE2040 program operations, recruitment, and other strategic partnerships. She earned a BA at Emory University, then worked as an educator at a school in Madrid, then at a Boys & Girls Club in San Francisco. After, she led the community management of a national digital corporate responsibility campaign at a technology startup. Amy later designed workforce development programs and worked in grant making in New York while completing her MSW at Columbia University. She worked in impact assessment in Costa Rica as well. She is fluent in Spanish and passionate about increasing access to life-changing professional opportunities.

Abstract

The objective of the workshop is to clarify misconceptions around what it means to "network" for students and emerging professionals, and to provide tools and techniques to make networking easy, painless, fun and productive. Networking is often considered the purview of MBAs and "suits", but it's important for everyone to know how to present themselves in public and make the most of the connections they have in order to advance your career. Networking doesn't have to be scary, intimidating, or slimy. It can be as fun as hanging out with your friends and making new ones, getting advice from someone you respect, or mentoring someone who needs your guidance. Given that experts estimate up to 80% of all jobs are filled via networks, cultivating and managing a strong network is imperative for people looking to take control of their career and find that next great professional opportunity.

Thursday
2pm-3:30pm

Panel - Room: Discovery A-B

Leadership Lessons for Sustained Success

Diego Riejtman (Microsoft), **George Cabrera** (Facebook)

Alfredo Cruz (TRUST), **Juliet Sipeche**, (XSEDE) Rice University

Biographies



Diego Riejtman is an engineering manager at Microsoft in Redmond, Washington who dedicated his last 12 years to shipping large scale services used by the Xbox console and the Outlook.com Email system. Prior to that Diego worked as a field software engineer with Intel (California) and different telecom corporations in Buenos Aires, Argentina, where he was born and raised. Global impact projects like Xbox and Outlook.com require influencing large groups of engineers to collaborate harmoniously, and over the years Diego has been taking notes on what works and what doesn't.



George Cabrera is a technical program manager on Instagram and joined Facebook during its infancy. He designed and led the implementation of the system Facebook uses for caching all user data. It's a massively distributed system, which stores the 'social graph' and does billions of operations per second. George graduated from Brown University with a degree in computer science. He loves understanding the world around him, and studying math and science gave him the framework to do just that. He's grateful that the work that he does benefits the world and touches millions of lives every day.



Dr. Alfredo Cruz is a Full Professor and Associate Director for the MS CS and MS CpE graduate programs at the Electrical and Computer Engineering and Computer Science Department (ECECS) at Polytechnic University of Puerto Rico. He is also founder and Director of the

Center of Information Assurance Research and Education (CIARE), the HPC facilities, and the Digital Forensics Investigation Lab. He has been a PI for more than \$2M in grants from the NSF, DoD, NRC, DoD IASP, among others. Dr. Cruz has over 30 publications in the area of Parallel Processing, VLSI Testing, and Information Security, among others.



Juliet Sipeche graduated with a BA magna cum laude in Political Science, Policy Studies and Religious Studies from Rice University in 1996 and was awarded the Joseph Cooper Prize as the most outstanding Policy Studies student. She received her law degree in 1999 from then

the University of Texas School of Law, and was admitted to the Texas State Bar that year. She was elected as the HISD Trustee of District VIII in 2010. In 2013, Juliet joined Rice University as Associate Director for the Richard Tapia Center for Excellence and Equity. She remains of counsel at the law firm of Nagorny & Stipeche, P.C.

Abstract:

Accordinging to Chemers, leadership can be described as a "process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task." As the description indicates, one can have leadership for a given task. A major question to be addressed is how to sustain one's leadership beyond a single task. This panel includes professionals with significant leadership experience to discuss

Thursday 5:30pm-7:30pm

Poster Session - Room: Leonesa I-III

The Tapia technical poster session provides an opportunity for students to present their latest research results and methodologies to a wide conference audience. Winners of the top posters (1st, 2nd, & 3rd place) in the graduate and undergraduate student categories will be recognized at the conference banquet.

A Network-Based Approach for Identifying Cancer Causing Pathogens

Joseph Hannigan (United States Military Academy)

Probabilistic Gene Coordination: A New Approach to Infer Co-regulation between Amino Acid Transporters and Metabolic Enzymes

Eman Badr, Lenwood Heath and Guillaume Pilot (Virginia Tech)

Development of a Scalable Neural Network Platform for Predictive Metabonomics

Marilyn B. Arceo and Grady Hanrahan (California Lutheran University)

TherAPPist: Using Mobile Technology to Aid Therapy

Matthew G. Rink (Ursinus College)

E-Nose, a new way of sensing

Nevrus Kaja (University of Michigan - Dearborn)

Methodologies and Issues in the Usability of Android Application Development

Carla De Lira, Grady Hanrahan, Craig Reinhart and Myungsook Klassen (California Lutheran University)

Social Norm Identification for Agent-Based Environments Using Numeric Association Rule Mining

Roghayeh Barmaki (University of Central Florida)

Error Estimation for Autonomous Suspended Load Flight

Molly Salman (Austin College) and Aleksandra Faust and Lydia Tapia (University of New Mexico)

DIVE: Developing a Virtual Environment to Teach Computational Thinking through Dance

Jesse D. Dotson, Kara Gundersen and Shaundra B. Daily (Clemson University)

On Achieving a Sanctuary for Integrity and Secrecy on Untrusted Platforms

Emmanuel Owusu (Carnegie Mellon University)

Robotics as a Tool of Engagement for Middle School Girls

Aisha Jackson (Spelman College)

Web-based Middleware for Data Management in Bioinformatics

Bright Dotu, Samuel Adeogun and Sajid Hussain (Fisk University)

Utilizing Embodied Conversational Agents For College Writing Labs

Roberson Bassy and John Porter (Morehouse College) and **Chelsea Falcone** (Spelman College)

Emotional Intelligent Agents: In Improving Science Self-efficacy

Everlyne N. Kimani and Hong Jiang (Benedict College)

Unsupervised Dynamic Task Allocation for Biologically-Inspired iAnt Robots

Justin C. Carmichael, Joshua P. Hecker and Melanie E. Moses (University of New Mexico)

Spectral Analysis for Regularization

Jorge A. Castanon (Rice University)

The Tekkotsu State Machine Composer

Albert Toledo and Roger Smith II (Hampton University) and **Dr. David S. Touretzky** (Carnegie Mellon University)

Humanoid Robot Health Coach Study

Elise Russell (Marquette University)

The Minimal k-core Problem for Modeling k-assemblies

Cynthia Wood (Rice University)

Improvement of Network Performance by Data Aggregation using Polynomial Regression in Body Area Sensor Network

Suryadip Chakraborty (University Of Cincinnati)

WheelNav: Crowd Sourced Paths for Wheelchairs

Emanuel M. Lin, Matthew Arakaki, Carolyn Gani and Mario Gerla (University of California, Los Angeles)

Design of a Mobile Application to Support Food Consumption Monitoring and Decision Making

Melva T. James and Shaundra B. Daily, Ph.D. (Clemson University)

Combining Voice Access with Aural Navigation Flows for Eyes-Free Browsing

Romisa Rohani Ghahari (Indiana University-Purdue University Indianapolis)

Exploring Corpus Analysis for Coarticulation in ASL

Larwan Berke (Gallaudet University) and **Marie Stumbo** (DePaul University)

Parallel Graph Reduce Algorithm for Scalable File System Structure Determination

John Emmons (Drake University)

Support the Data Enthusiast: Challenges for Next-Generation Data-Analysis Systems

Kristi Morton (University of Washington)

Gyro Touch: Complementing the Multi-Touch Display

Francisco Raul Ortega (Florida International University)

Protocol in Secure Smart Grid Software Updates

Eric A. McCary (University of Alabama)

User Interface Design and Development for the Enhanced Radiological Nuclear Inspection and Evaluation (ERNIE) Tool

Bruno G. Dueno (Polytechnic University of Puerto Rico)

B.A.S.S. Blind-Assistive Spatialized Screen-reading

Jonathan Cofino (Florida International University)

Assessment of Using a Dual Fiber-Optic System for Acquiring X-ray Data at the NIF

Zaylis Zayas Rivera (University of Puerto Rico - Mayagüez)

Identity-Based Encryption with ϵ 'th Residuosity and its Incompressibility

Manuel Sabin (California State University Sacramento)

ETTE: Designing a Mobile Application to Assist Caregivers of Alzheimer's Patients

Jazette M. Johnson (Spelman College)

Automatic Conceptual Description of Images

Keela C. Ainsworth (University of Tennessee) and **Sreenivas R. Sukumar** (Oak Ridge National Laboratory)

Examining the Possibility of Three Dimensional Positional Tracking through Brain Computer Interfaces

Amy U. Banic, Sami J. Mirimiri and **Jamal Thorne** (University of Wyoming)

Designing a multi-touch system for intuitive control of Nano scale scanning probe microscopy

Michael Eze (Fisk University)

Informativeness and Objectivity of Texts on the Web

Alisa Zhila (Center for Computing Research, Instituto Politécnico Nacional, México)

Visualization Development for the Virtual Town Square

Rafael Burgos-Guntin (University of Puerto Rico - Mayagüez) and **Manuel A. Pérez-Quiñones** and **Andrea Kavanaugh** (Virginia Tech)

RVO Collision Avoidance in Unity 3D

David Cherry (Morehouse College) and **Stephen Guy** (University of Minnesota)

Going Social: Improving Navigation in the Virtual Town Square

Heather Price (Radford University) and **Manuel A. Pérez-Quiñones** and **Andrea Kavanaugh** (Virginia Tech)

Faster signaling pathway detection, in practice

Ioannis Koutis and **Alejandro Vientós** (University of Puerto Rico, Río Piedras)

Delivering Secure Education Content Through a Mobile Cloud Environment

Tobechukwu T. Ezekwenna (Computing Research Association)

Contradiction: Public Access to Private Accounts

Danielle Butts (Norfolk State University)

Preliminary Surfaceless Sketch Recognition Techniques for Use in Intelligent Mid-Air Sketching Interfaces

Paul Taele and **Tracy Hammond** (Texas A&M)

Automatic Generation of Service Tiers for a Personalized Service Level Agreement in the Cloud

Jennifer Ortiz (University of Washington)

Socially Cognizant Routing Protocol Simulations For Delay Tolerant Mobile Networks

Corey E. Baker (University of Florida)

Human Computing Interaction: Blended Learning with Culturally Situated Design Tools

Jonathan R. Johnson (Morehouse College)

Thursday

7:30pm-8:15pm

Birds of a Feather - Room: Menzies

AccessComputing - Opportunities for Students with Disabilities

Richard Ladner (University of Washington)

Biography

Richard E. Ladner is a Professor in Computer Science and Engineering at the University of Washington. He received a Ph.D. in mathematics from the University of California, Berkeley in 1971. His current research is in the area of accessible computing which is an important subarea of Human-Computer Interaction (HCI). He is PI for the AccessComputing Alliance with the goal of increasing the number and success of students with disabilities in computing fields. He is a recipient of the 2004 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM)

and the 2008 Computing Research Association's A. Nico Habermann Award.

Abstract

AccessComputing is a National Science Foundation Alliance with the goal of increasing the number and success of students with disabilities in computing fields. This BoF will start with an information session about the opportunities available to students with disabilities and others wanting to support them. The session will end with a discussion about ways to better integrate people with disabilities in the Tapia Conference, which is a celebration of diversity in computing.

Thursday 7:30pm-8:15pm

Birds of a Feather - Room: Portland A-B
First Generation College Students and Diversity in Computing
Cecili Reid (Georgia Institute of Technology)



Biography

Cecili Reid is a graduating 4th year Computer Science student from Georgia Tech. Cecili is highly involved on campus through research and community services. Cecili founded FirstGen as an organization for first generation college students at Tech. Cecili is heavily involved on and off campus through research and community service and hopes to continue on to obtain a PhD in Human-Computer Interaction after graduating with a Bachelor's this Spring.

Abstract

Often, when the term "diversity" is used to discuss the field of computing, it assumingly pertains to ethnicity and gender. It is agreed that there should be more diversity in computing. However, should striving to diversify the computing field also include a focus on first generation college students? Attracting first generation students to, or keeping students in the field of computing may be difficult to overcome. Without parents or families in a computer related field, it is difficult for students to be exposed to computing if computer science is not an integral part of their grade school education. This session will discuss participants' experiences with their involvement in computing, detail how a crucial part of their background assists or hinders them in their academics and research, and if there are other identifiers that can add to the diversity of the field of computing besides gender and ethnicity.

Thursday 7:30pm-8:15pm

Birds of a Feather - Room: Discovery A-B
Timing is an Art

Elnaz Nouri (University of Southern California), **Shu Cai** (University of Southern California), **Hadis Nouri** (University of Southern California)



Biographies

Elnaz Nouri is a PhD student in the department of computer science at the University of Southern California. Her research focuses on the effect of culture on strategic decision making in social interactions such as negotiation. She tries to develop conversational agents that can negotiate with humans.



Shu Cai is a Ph.D. student in Computer Science at the University of Southern California. She spent the last three years in the Natural Language Group at the Information Sciences Institute working on machine translation.



Hadis Nouri is a first year PhD student in the department of industrial and systems engineering at the University of Southern California. Her research is on 3D printing technologies and is currently focusing on approaches for compensating for shrinkage and inaccuracy in 3D printing.

Abstract

Women are often said to be inherently good at multitasking, but counter to popular belief, time management is a skill that needs to be developed. This session will explore techniques that women at different points in their career use to organize their time. In particular, we will focus on how to balance work commitments with our commitments to friends, family and outside activities. Our aim is to recognize the problems we are facing and share tips for how to deal with them. As members of a technical community, we have a special perspective on how technology can help us manage our busy schedules, but we also know how distracting it can be to always be "plugged in." We are excited to share our solutions for maintaining a healthy work-life balance and hear from the audience about their own techniques.

Thursday 7:30pm-8:15pm

Birds of a Feather - Room: Eliza Anderson Amphitheater
Hispanics in Computing Community
José Morales (Carnegie Mellon University)



Biography

Dr. José Morales is currently a researcher in cyber security in the Digital Intelligence and Investigations Directorate for CERT program in the Software Engineering Institute at Carnegie Mellon University. His research focus is on behavior based malware analysis and detection, suspicion assessment theory and implementation, mobile malware, and malware distribution networks. He is also co-founder and moderator of the Hispanics in Computing email list. He graduated with his Ph.D. in Computer Science in 2008 from Florida International University and completed a Postdoctoral Fellowship at the Institute for Cyber Security in the University of Texas at San Antonio.

Abstract

The HispanicPhD mailing list was founded a few months before the Tapia 2009 Conference. At the 2011 Conference in San Francisco we changed the name and expanded the group to include all Hispanics in Computing (not just PhD level). As a result of the conference, a new listserv was created and a Facebook group. This proposal seeks to create a BoF for the Hispanics in Computing community. The gathering will allow many of us to meet face to face and discuss issues facing Hispanics. We want to learn from the audience how they would like the group to evolve in the future. We would also like to discuss how institutions can better serve Hispanics in the U.S.

Thursday 8:15pm-9pm

Birds of a Feather - Room: Portland A-B

Computer Security

Álvaro Cárdenas (University of Texas at Dallas)

Biography

Álvaro A. Cárdenas is an Assistant Professor at the University of Texas at Dallas. He holds M.S. and Ph.D. degrees from the University of Maryland, College Park, and a B.S. from Universidad de los Andes. Before joining UTD he was a postdoctoral Scholar at UC Berkeley and a research staff at Fujitsu Laboratories of America. His research interests include network security, cyber-physical systems, the smart grid, and intrusion detection.



Abstract

The goal of this BOF is to facilitate a meeting place where participants to the Tapia conference interested in computer security can network and learn about education opportunities as well as discuss research topics and trends in information security.

Thursday 8:15pm-9pm

Birds of a Feather - Room: Eliza Anderson Amphitheater

Computing for Disasters

Robin Murphy (Texas A&M)

Biography

Robin R. Murphy is the Raytheon Professor of Computer Science and Engineering at Texas A&M and Director of the Center for Emergency Informatics. She received a B.M.E. ('80), a M.S. ('89) and Ph.D ('92) in computer science from Georgia Tech. She is an IEEE Fellow with over 150 publications. She has been declared an "Innovator in AI" by TIME, an "Alpha Geek" by WIRED, and one of the "Most Influential Women in Technology" by Fast Company for her work with disaster robotics. Dr. Murphy recently co-chaired the NSF/CCC Workshop on Computing for Disasters.



Abstract

This BOF strives to build a network of participants interested in how computing can be applied to disasters. Computing is already revolutionizing disaster management through information technologies such as networks, social media, crowd sourcing, citizen science, unmanned systems, data mining, high performance computing, and geospatial information systems. The intent of this session is for students, institutions, and industry to share what they are doing, to learn more about how they could get involved either as individuals or through formal programs, and to help create a research agenda that is sensitive to the diversity of the victims. programs, and to help create a research agenda that is sensitive to the diversity of the victims.

Thursday 8:15pm-9pm

Birds of a Feather - Room: Discovery A-B

The Power of Communities

Rose Robinson (Anita Borg Institute), **Ayori Selassie** (Pitch Mixer Entrepreneur Forum)

Jennifer Argüello (Kapoor Center)

Biographies

Rose Robinson is inspired and engaged. Rose has held various positions with start-ups, large consulting firms in government, non-profit and industry. She is changing the world through contributing to open source projects, continuous technology learning, software/development and tools, and collaborating with great innovating minds. Rose Robinson openly engages in great technical communities, gender, sexual preference and racial equality and encourage young people, especially in underrepresented groups and under-served communities, to enter STEM fields.



Ayori Selassie has been a self taught developer since age 11 and first founder at age 16, Ayori spent the last 5 years at salesforce.com building business solutions for Human Resources and Customer Support Divisions. Her passion for startups led her to start Pitch Mixer

Entrepreneur Forum, which is a non-profit program to develop startup ecosystems in underserved communities. After supporting entrepreneurs through Pitch Mixer she co-founded Intuitive Interactive, and has since designed, developed and released a science game for children for the Jim Henson Company featuring Sid the Science Kid. Ayori serves on the Communities Board for the Anita Borg Institute.

Biography

Jennifer Argüello is Executive Director of Latino2, a project of Latinos in Tech Innovation & Social Media (LATISM). She is also Senior Special Projects Advisor at the Kapor Center for Social Impact. Ms. Argüello has a B.S. in Computer Science from the University of California, San Diego and 10+ years of experience in technology. She has two significant passions: computing education for youth and technology startups. Ms. Argüello has won a great deal of industry recognition, recently being named a 2013 Silicon Valley Latino 40 under, 40 Latinos2Watch in Science and Technology, and Latina.com 25 Latinas Who Shine in Tech.

Abstract

Communities have emerged in large numbers over the last few years in meetups like Occupy and many virtual communities like on Facebook and Twitter movements. There is tremendous impact in gathering together for a common cause. Communities have played essential roles in the success of many causes/movements, ideas/innovations and even startups. Affinity groups such as Systems, Latinas in Computing (LiC) and Black Women in Computing (BWiC) are communities that engage their members to inspire them to produce positive changes in attitudes within the community toward computing fields. They offer social support and tackle some very sensitive and volatile issues that members face in the workplace and in their personal lives. Discussions include how communities are helping their members in school and workplace, how they are exposing the next generations to opportunities in computing fields, and what type of resources they provide to empower their members to be successful in computing.

Friday
8:30am-9:15am

Plenary Speaker*Transparency Establishes Trust*

Latanya Sweeney, (Professor of Government and Technology in Residence at Harvard University Entrepreneur Forum)

Room: Leonesa I-III

Biography

Latanya Sweeney, PhD is Professor of Government and Technology in Residence at Harvard University, was a Distinguished Career Professor of Computer Science, Technology and Policy in the School of Computer Science at Carnegie Mellon University and remains the Director and founder of the Data Privacy Lab at Harvard University. Dr. Sweeney creates and uses technology to assess and solve societal, political and governance problems, and teaches others how to do the same. One focus area is data privacy where her work has received awards from numerous organizations, including the American Psychiatric Association, the American Medical Informatics Association, and the Blue Cross Blue Shield Association. The American College of Medical Informatics inducted her as a Fellow in 2006. In 2009, she was appointed to the Federal HIT Policy Committee. Dr. Sweeney received her PhD in computer science from the Massachusetts Institute of Technology in 2001, being the first black woman to do so. Her undergraduate degree in computer science was from Harvard University where she graduated cum laude.

Abstract

Our national security infrastructure and largest hi-tech companies have found value in transparent personal data. They trust the quality of the personal data they receive to make revenue and national security decisions. The opposite is true too. A lack of trust breeds distrust. Not knowing what others do with the personal data they receive leaves the public distrustful and vulnerable. It is a lesson democratic societies have learned before. Transparent sharing of personal data to a repository should have transparent data sharing from a repository. This is a lesson for healthcare to learn too. Opaque data sharing of patient information beyond the doctor-patient relationship threatens to disrupt the data flow, wasting billions of stimulus dollars that are already being spent to develop these elaborate networks for sharing personal health information.

Friday
9:45am-10:30am

Plenary Speaker

Distributed Algorithms for Multi-Robot Systems

James McLurkin, Assistant Professor at Rice University
Room: Leonesa I-III



Biography

James McLurkin is an Assistant Professor at Rice University in the Department of Computer Science. Current interests include using distributed computational geometry for multi-robot configuration estimation and control, and defining complexity metrics that quantify the relationships between algorithm execution time, inter-robot communication bandwidth, and robot speed. Previous positions include lead research scientist at iRobot corporation, where McLurkin was the manager of the DARPA-funded Swarm project. Results included the design and construction of 112 robots and distributed configuration control algorithms, including robust software to search indoor environments. He holds a S.B. in Electrical Engineering with a Minor in Mechanical Engineering from M.I.T., a M.S. in Electrical Engineering from University of California, Berkeley, and a S.M. and Ph.D. in Computer Science from M.I.T.

Abstract

The Multi-Robot Systems lab at Rice University focuses on the opportunities and challenges presented by large populations of robots. These populations enable simultaneous coverage of large areas, highly parallel operations, and other novel solutions, but require distributed approaches for sensing, computation, communication, and actuation. We present an overview of our work with multi-robot systems, including distributed algorithms for robot recovery, angular coordinate systems, and massive manipulation. Producing solutions that scale to large populations is critical, so we model our robotic systems from a computational point-of-view: as geometric graphs embedded in the plane, with communications bandwidth constraints and self-mobile vertices. Finally, we introduce the “r-one” robot, an advanced low-cost design suitable for research, education, and outreach. We provide tales of joy and disaster from using 90 of these robots for our research, a freshman engineering systems course, and public outreach events.

Friday
11am-12:30pm

Panel - Room: Portland A-B

New Diversity Interventions for the Tech Workforce & Entrepreneurs

Alberto I. Roca (DiverseScholar), **Gregorio Rojas** (Sabio Developer Bootcamp)
Jennifer Arguello (Latino2), **Sylvia Flores** (Manos Accelerator)
Juan Gilbert (African American Entrepreneurs in Technology Summit)

Biographies



Dr. Alberto I. Roca, PhD is Executive Director of DiverseScholar who promotes the recruitment, mentoring, and success of diverse doctorates. Dr. Roca’s training is in biochemistry; and, his current research is in bioinformatics. While a postdoc, he created the web portal MinorityPostdoc.org, founded the Postdoc Committee of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), and co-founded the Diversity Committee of the National Postdoctoral Association. Dr. Roca also promotes diversity in the tech community by organizing sessions at the LATISM, ScienceOnline, and Tapia conferences and by publishing original news articles at DiverseScholar.org



Jennifer Argüello is Executive Director of Latino2, a project of Latinos in Tech Innovation & Social Media (LATISM). She is also Senior Special Projects Advisor at the Kapor Center for Social Impact. Ms. Argüello has a B.S. in Computer Science from the University of California, San Diego and 10+ years of experience in technology. She has two significant passions: computing education for youth and technology startups. Ms. Argüello has won a great deal of industry recognition, recently being named a 2013 Silicon Valley Latino 40 under, 40 Latinos2Watch in Science and Technology, and Latina.com 25 Latinas Who Shine in Tech.



Gregorio Rojas is co-founder and lead trainer of the programming bootcamp Sabio. He has 13+ years of experience designing and building software applications. His key technical positions include: lead developer of Facebook’s online gift card redemption service; lead developer of MySpace’s monetization team responsible for the implementation of multi-million dollar advertising revenue transactions; and Director of Development of an enterprise SaaS which was selected as subcontractor to General Dynamics’s team responsible for construction of the Walter Reed National Military Medical Center. Mr. Rojas’s bachelor’s degree is from Boston University; and, he also studied computer science at Northeastern University.



Sylvia Flores is co-founder of Manos Accelerator. She is an award-winning entrepreneur and engineer with years of experience. She founded several startup companies and is knowledgeable of the U.S. Hispanic market. In 2003, she worked with the former President of Mexico Vicente Fox to establish a technology incubator for Mexican entrepreneurs in Silicon Valley. Prior to her career in startups, Sylvia held various engineering positions at IBM. She was awarded the ‘Entrepreneur of the Year’ award in 2003 from Latino Style Magazine. She earned a Chemical Engineering degree from San Jose State University.



Biography

Juan E. Gilbert is a Presidential Endowed Professor and Chair of the Human-Centered Computing Division in the School of Computing at Clemson University (<http://www.HccLab.org/>). He is also a Professor in the Automotive Engineering Department at Clemson University. Dr. Gilbert has published more than 130 articles, given more than 200 invited or keynote talks and obtained more than \$19 million dollars in research funding. He has graduated more than 60 graduate students.

Abstract

Come learn about efforts that diversify the tech workforce and entrepreneurial startups. Coding bootcamps, pitch events, startup accelerators, co-working spaces, and other activities are popping up across the country. This panel features those initiatives with a diversity mission sensitive to the needs of underrepresented minorities. The panelists include academics who develop prototypes for African American startups, accelerators and pitch events for Latinos, and an inexpensive developer bootcamp with a unique "pay-for-success" financial model. Attendees will also be informed about networks and conferences for the diverse tech community such as LATISM, SXSW Blacks in Tech, FOCUS100, Latino Startup Alliance, lamDTech, StartOut.

Friday
11am-12:30pm

Panel - Room: Eliza Anderson Amphitheater

Building a Career for You: an Improvisational Art and Practice

Raquell M. Holmes (improvscience), **Stephanie Pulford** (University of Washington)
Elizabeth Bautista (Lawrence Berkeley National Lab), **Luis Melara** (Shippensburg University of Pennsylvania)

Biographies



Dr. Raquell Holmes is a researcher and educator who uses her understanding of computing, computation and biology to create interdisciplinary research projects and increase participation in the computational sciences. She is developing an approach to creating learning communities, organizations and research groups that is based on cutting edge educational and psychological discoveries of performance. Dr. Holmes created improvscience to develop scientists' skills in collaboration and innovation. She is a pioneering organizer of an increasing network of scientists who practice and examine improvisation in science education and research.



Luis Melara, Ph.D., is an Associate Professor of Mathematics at Shippensburg University of Pennsylvania. He is actively involved with the Society for Industrial and Applied Mathematics (SIAM), the Society for the Advancement of Chicanos and Native Americans in the Sciences (SACNAS) and the Mathematical and Theoretical Biology Institute (MTBI) at Arizona State University. He has a B.S. in Applied Mathematics from U.C.L.A. and a Ph.D. from Rice University.



Stephanie Pulford, Ph. D., is an instructional consultant and engineering writing specialist at the University of Washington's Center for Engineering Learning and Teaching. She has a Ph.D. in mechanical engineering from UC Davis, and has worked professionally as an aircraft engineer and a technical editor.



Elizabeth Bautista is Manager for the Operations Technology Group at Lawrence Berkeley National Lab's NER-SC Center, a scientific facility for the Office of Science in DOE. She is actively involved with the Lab's outreach programs, those of the University of California Office of the President, Broader Engagement at Supercomputing as well as the Grace Hopper Conference. She has a B.S. in Computer Information Systems and an M.B.A. in Technical Management from Golden Gate University. She is always seeking to broaden her knowledge of the technical industries where women are making a difference.

Abstract

How do you get the job you want or turn the job you have into one you love? How do you speak with faculty or managers and advance your career? You improvise. Improvisation is the art and practice of creating unscripted scenes together by listening to one another and building with what each person says and does. Improvisers focus on acceptance, spontaneity and celebrating mistakes. This focus shifts motivations away from failure avoidance towards building and learning as improvisational play. In today's world, a neat and efficient career plan is impractical. Funding structures change, we develop new aptitudes that enable unforeseen directions, and scientific frontiers change around us. We are challenged at all career stages to create a situation where we can grow, develop and attain our evolving goals. This interactive panel session enables participants to experience a different way of facing the shifting landscape of their career development.

Friday 11am-12:30pm

Workshop - Room: Discovery A-B

The \$10M Plan: Increasing Graduate Funding and Diversity in Computing

Patricia Ordóñez (University of Puerto Rico, Río Piedras), **Frances Carter** (National Institutes of Health)

Biographies



Patricia Ordóñez is an Assistant Professor in the Department of Computer Science at the University of Puerto Rico Río Piedras. She received her B. A. in Hispanic and Italian Studies from Johns Hopkins University and her MS and PhD in Computer Science from the University of Maryland Baltimore County (UMBC). Her research centers on using visualization and data mining to improve the state of medicine in intensive care units. She is also developing assistive technologies for programming. She is a former National Science Foundation Graduate Research Fellow and she is passionate about diversifying the field of computer science.



Frances Carter-Johnson (<http://francescj.wordpress.com>) completed a Ph.D. in public policy (evaluation and analytic methods concentration) at the University of Maryland Baltimore County (UMBC) in May 2011. Post PhD, Frances enhanced her research and evaluation skills initially, as a research associate at Westat (westat.com); most recently as a postdoctoral associate and diversity fellow in MIT's Teaching and Learning Laboratory (mit.tll.edu); and independently through her company, Evaluation and Assessment Solutions (evalsol.com). Dr. Carter-Johnson, currently a AAAS Science and Technology Policy Fellowship at the National Institutes of Health's Center for Scientific Review, has presented national and international workshops on graduate funding since 2007.

Abstract

For the past six years, the presenters of this workshop have been giving presentations on how to fund your graduate education at research universities around the nation. Over 10 of their mentees have gone on to win over \$1M to fund their graduate education in STEM. Three of these mentees have been in computer science. The presenters' next goals in these efforts are to increase the number of graduate students receiving funding. Therefore, this workshop targets both students and educators. Students, come learn how to fund your graduate education.

Educators, come gain and provide insight on how to guide graduate funding success at your institution. The workshop facilitators are looking for collaborators committed to helping reach the \$10M mark in funds raised for underrepresented students in computing in the next five years.

Friday 11am-12:30pm

Panel - Room: Leonesa I-III

In the Cloud: Challenges and Opportunities

Gail Evans (Microsoft Research), **Katalin Bartfai-Walcott** (Intel), **John Davis** (RAND), **James Mikens** (Microsoft Research)

Biographies



Katalin Bartfai-Walcott is a Principal Engineer at Intel, where she leads the Cloud Computing Datacenter architecture and strategy. Her focus is on Rack Scale Architecture strategy and integration for server, network and storage products as well as scale-out and autonomic server systems in support of cloud workloads, management and orchestration. Katalin has over 25 years of industry experience, 22 years with IBM. She published over 28 technical papers and several IBM Redbooks. She has spoken at seminars and conferences since 1995, holds 6 patents, and has received IBM's Chairman's Award for her work on building the Linux Services and Support strategy.



John Davis, a technology policy researcher at RAND, is focused on the impact of technology on society and the consideration of systems and policies that enable society to optimally benefit from technology. Dr. Davis' projects involving technology innovation, cybersecurity and digital privacy. Prior to joining RAND, John worked at the IBM T.J. Watson Research Center where he studied context-aware computing. In 2007, he co-founded a startup that provided audio/video search technology and in 2010, he served as a Senior Software Engineer at WaPo Labs. John holds a Ph.D. in EE from UC Berkeley and a BSEE from Howard University.



Gail Evans leads Microsoft Studios' Services and Operations team. She is responsible for leading the Studios' transformation to Entertainment-as-a-Service. She is focused on incubating, operating and deploying new technologies, services and processes, while building a service culture. She also leads Business Intelligence and User Research. Prior to joining Microsoft, Gail lead HP.com team and the most ambitious website redesign project in the history of HP. She earned a BSCS from Nazareth College and a MBA from University of Rochester.

Abstract

Clouds refer to the network-based services, which appear to be provided by real server hardware, but are in fact served by virtual hardware. The virtual servers can be moved around and scaled up or down without affecting the end users. This panel will focus on the challenges of developing effective clouds and the opportunities of providing cloud services. The panel consists of representatives from different companies to provide diverse perspectives.

Friday
2pm-3pm

Ken Kennedy Distinguished Lecture

Kathryn McKinley (Microsoft)

The Yin and Yang of Hardware Heterogeneity: Can Software Survive?

Room: Leonesa I-III

Biography



Professor Kathryn McKinley holds an Endowed Professorship in the Department of Computer Science at The University of Texas at Austin. She received her Ph.D. from Rice University working with Ken Kennedy. Her research interests include compilers, memory management, runtime systems, programming languages, security, reliability, and architecture. She and her collaborators have produced tools based on their research that are in wide research and industrial use: the DaCapo Java Benchmarks, TRIPS Compiler, Hoard memory manager, MMTk garbage collector toolkit, and the Immix mark-region garbage collector. Dr. McKinley has graduated fourteen PhD students and is currently supervising four. Her service includes program chair for ASPLOS '04, PACT '05, and PLDI '07; co-Editor-in-Chief of ACM Transactions on Programming Language Systems (TOPLAS) (2007-2010); and CRA-W board member (2009-present). Dr. McKinley received an NSF CAREER award, IBM Faculty awards, outreach awards, and best paper awards. She is an IEEE Fellow and an ACM Fellow.

Abstract

Power and energy constraints are now the driving force in devices from smartphones to servers. Quantitative power, performance, and energy measurements suggest that hardware heterogeneity to match software diversity has the potential to deliver energy efficiency. However, programming heterogeneous hardware directly is a nightmare. We discuss some approaches and results that abstract, choose, and exploit hardware heterogeneity. New programming and system abstractions are essential for establishing a parallel heterogeneous ecosystem in the post-Dennard era.

Friday
6:30pm-11pm

Banquet Speaker

Marcus Mitchell (Engineering Director at Google)

Room: Leonesa I-III

Biography



Marcus Mitchell is an Engineering Director in Google's New York engineering center. He works in the GeoCommerce product area focusing on payment products for buyers and sellers on the web, particularly Google Wallet, and the global payments platform that underpins all of Google's consumer commerce efforts. In addition Marcus works with Google.org projects such as the Crisis Response team and acts as an advisor for Google's initiatives to increase diversity in Computer Science and Engineering. Marcus holds a Ph.D. from Caltech in Computation and Neural Systems and a Bachelor's degree from Harvard University in Electrical, Computer, and Systems Engineering.

Richard Tapia Award Recipient Jan Cuny

Jan Cuny was one of the hundred women in the first class of women at Princeton. She managed to earn a magna cum laude degree in computer science even before the university had a computer science department. She stuck with computer science, but switched to the Big Ten, earning an M.S. degree from the University of Wisconsin and a Ph.D. from the University of Michigan. She spent the next 20 years as a faculty member, first at Purdue University, then at the University of Massachusetts, where she received tenure, and finally at the University of Oregon, where she was promoted to full professor. Her research interests focused on massively concurrent computation, particularly on debugging tools and programming environment support for computational science (working mostly with geologists).

Perhaps it was her early experiences at Princeton, where she was the only female in every course that she took for her major, that led Jan to an interest in gender issues in computing. In any event, she was a long time member, co-chair, and steering committee member of the Computing Research Association's Committee on the Status of Women in Computing Research (CRA-W). During this time, Jan and her husband, Steve, adopted three biracial children whose experiences and escapades helped expand her interests to the broader challenges faced by the underrepresented and underserved. In 2004, she was offered the opportunity to pursue these interests full time, when she moved to the National Science Foundation to establish the Broadening Participation in Computing (BPC) program.



BPC and the amazingly talented, energetic and committed PIs that it funded are making computing a more inclusive field. Jan is most proud of the BPC Alliances that were built, alliances that run programs, advocate, and serve as national resources for efforts to include women, African Americans, Hispanics, Native Americans, and persons with disabilities in computing.

The effort to make computing more inclusive is certainly not over. There remains much more to do. In recognition of this, NSF has merged its computing education efforts with broadening participation efforts. These efforts are synergistic: it is not enough to just engage diverse populations of students, we must also put them on a path to a career. It is not enough to improve education if we are not at the same time working to include those who have been left out for too long. Most

recently, this merger has led to an effort to get inclusive, rigorous, academic computing courses taught by well-qualified teachers into America's public schools. This effort—called the CS 10K project because its initial target is 10,000 schools and 10,000 teachers—has funded the development of two new CS courses that are now being piloted in hundreds of schools across the country. CS 10K is now focused on creating the scalable models of professional development that will be needed for CS teachers.

For her efforts with underserved populations, Jan is a recipient of a 2006 ACM President's Award, the 2007 CRA A. Nico Habermann Award, and the 2009 Anita Borg Institute's Woman of Vision Award for Social Impact.

Saturday 8am-5pm

Congratulations to the 2014 Doctoral Consortium participants - Room: Bluwett Suite

The Doctoral Consortium is a one-day workshop that provides an opportunity for doctoral students to discuss and explore their research interests with a panel of established researchers in computing.

Expressing Interactivity with States and Constraints
Stephen Oney (Carnegie Mellon University)

An Investigation of Data Privacy and Utility Using Machine Learning Classification Methods as a Gauge
Kato Mivule (Bowie State University)

Noise Reduction in User Generated Data Sets
Louis Gutierrez (Rensselaer Polytechnic Institute)

Automatic Evaluation of Students' Testing Skills for Improving Correctness of Their Code
Zalia Shams (Virginia Tech)

Adaptive Neighbor Connection for PRMs: A Natural Fit for Heterogeneous Environments and Parallelism
Chinwe Ekenna (Texas A&M)

Predicting cancer patients disease trajectory and discovery of temporal pattern
Saeed Mehrabi (Indiana University-Purdue University Indianapolis)

Cultural Relevance and Social Impacts of User-Defined Gestures for Touchscreen User Interfaces
Jaye Nias (Bowie State University)

A Data-Driven Model for Content-Specific Assessment of Service Workflows
Damian A. Clarke (University of Miami)

Integrating Computational Science and Engineering education into MSE Curriculum
Camilo Vieira (Purdue University)

A Process Framework for Managing Implicit Requirements Using Analogy-Based Reasoning
Onyeka Emebo (Covenant University)

Supporting Group Peer Mentorship System Using Online Peer Review
Oluwabunmi Adewoyin (University of Saskatchewan)

Model-driven Persuasive Health Game Design
Rita Orji (University of Saskatchewan)

Language Design and Implementation for Computational Modeling, Simulation and Visualization
Vishakha Sharma (Stevens Institute of Technology)

Examining Students' Learning Potential Using Computational-based Modeling Tools
Oluwatosin Alabi (Purdue University)

HCI: A Gateway to Computer Science for Minority Middle School Girls
Ashley Robinson (Virginia Tech)

What age is too young to teach children computer programming?
Michelle Snowden (Bowie State University)

Incorporating Second-Screen Experiences to Augment Interpretation in Informal Science Centers
Priscilla Fernanda Jimenez Pazmino (University of Illinois at Chicago)

Query-Driven Data Analytics
Christan Grant (University of Florida)

8:00AM - 5:00PM

Doctoral Consortium

Room: Bluwett Suite

The Doctoral Consortium is a one-day workshop that provides an opportunity for doctoral students to discuss and explore their research interests with a panel of established researchers in computing. *(By invitation only)*

Code-a-thon

Room: Leonesa III

Sponsored by Motorola Solutions Foundation & TRUST

The Code-a-thon will give participants an opportunity to have hands on experience with coding in various computing focus areas including cybersecurity, mobile applications, and parallel processing. *(By invitation only)*

Workshop

High School Teachers Workshop

Room: Tolmie

Sponsored by NSF

The High School Teachers Workshop is dedicated to providing professional development to High School Computer Science Teachers. *(By invitation only)*

8:00AM - 12:00PM

ARTSI Robotics Competition

Room: Princessa I-II

Sponsored by IAAMCS

During the robotics competition's multiple events, teams of students will program their Calliope2SP robots using the Tekkotsu open source robotics application development framework to perform perception, navigation, and manipulation tasks. *(By invitation only)*

9:00AM - 12:00PM

University of Washington CSE Tour and Information Session

Room: Grand Hyatt Lobby

Sponsored by University of Washington, Computer Science and Engineering Department

This session is for students who are considering graduate school and want to learn about CS programs at the University of Washington. *(By invitation only)*

1:00PM - 5:00PM

IAAMCS Distinguished Fellowship Writing Workshop

Room: Eliza Anderson Amphitheater

Sponsored by IAAMCS

This workshop provides students with guidance writing competitive applications for summer internships, graduate school and or/external funding. *(By invitation only)*

Committees

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Annie Antón (Georgia Institute of Technology)

Program

Manuel A. Pérez-Quiñones (Virginia Tech), Chair
 Ronald Metoyer (Oregon State University), Panels Chair
 Monica Anderson (University of Alabama), Posters Co-Chair
 Quincy Brown (Bowie State University), Posters Co-Chair
 Tao Xie (University of Illinois at Urbana-Champaign),
 Doctoral Consortium Chair
 Carlos Evia (Virginia Tech), BoF Chair
 Dan Garcia (Berkeley), High School Teachers Workshop Chair

Scholarship

Jamika D. Burge (Information Systems Worldwide), Chair
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 Nancy Amato (Texas A&M), CRA-W/CDC Workshop Co-Chair
 Jamika Burge (Information Systems Worldwide), CRA-W/CDC
 Workshop Co-Chair

Code-a-thon

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 Aimee Tabor (TRUST), Co-Chair
 Joe Djorgee (Microsoft), Jeremy Foster (Microsoft), Kristin Gray (Motorola), William Hodge (Microsoft), Sheriff Jolaoso, Carlos McKinley (Microsoft), Tom Murphy (Contra Costa College), Fred Norton (Microsoft), Charlie Peck (Earlham College), Hoop Somuah (Microsoft)

Registration

Tony Baylis (Lawrence Livermore National Laboratory)

Workshop, Panels, and BOF Reviewers

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The National Science Foundation is an independent federal agency created by Congress on 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." The funding from NSF for Tapia 2013 was made possible by a grant, CNS 1050330, from the CISE Directorate.

TRUST

The Team for Research in Ubiquitous Secure Technology (TRUST) is focused on the development of cyber security science and technology that will radically transform the ability of organizations to design, build, and operate trustworthy information systems for the nation's critical infrastructure. Established as a National Science Foundation Science and Technology Center, TRUST is addressing technical, operational, legal, policy, and economic issues affecting security, privacy, and data protection as well as the challenges of developing, deploying, and using trustworthy systems.

Microsoft

Founded in 1975, Microsoft's (Nasdaq "MSFT") vision is to create a family of devices and services for individuals and businesses that empower people around the globe at home, at work and on the go, for the activities they value most. We believe that diversity enriches our performance and products, the communities where we live and work, and the lives of our employees. As our workforce evolves to reflect the growing diversity of our communities and the global marketplace, our efforts to understand, value and incorporate differences become increasingly important.

Georgia Tech

The Georgia Institute of Technology is one of the nation's top research universities, distinguished by its commitment to improving the human condition through advanced science and technology. Accredited by the Southern Association of Colleges and Schools (SACS)*, the Institute offers many nationally recognized, top-ranked programs. Undergraduate and graduate degrees are offered in the Colleges of Architecture, Computing, Engineering, Sciences, the Scheller College of Business, and the Ivan Allen College of Liberal Arts. Georgia Tech is consistently ranked in U.S. News & World Report's top ten public universities in the United States.

iAAMCS

The Institute for African-American Mentoring in Computing Sciences (iAAMCS, pronounced 'i am cs') will serve as a national resource for all African-American computer science students and faculty. iAAMCS will increase the number of African-Americans receiving Ph.D. degrees in computing sciences, promote and engage students in teaching and training opportunities, and add more diverse researchers into the advanced technology workforce.

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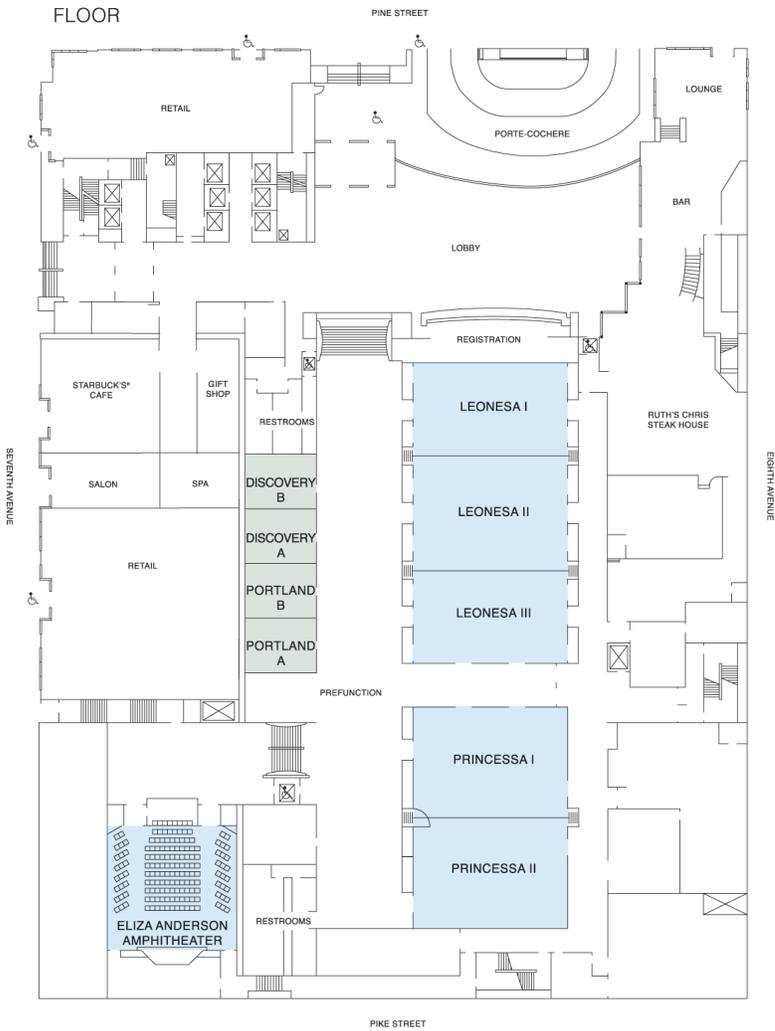
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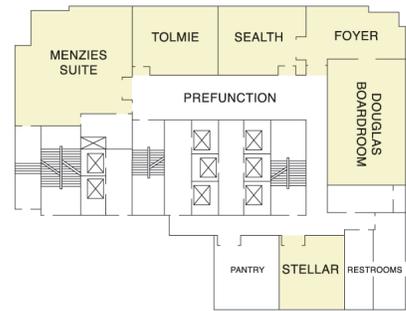
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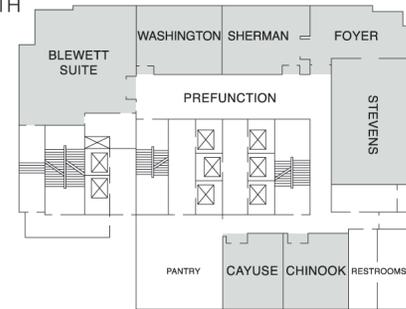
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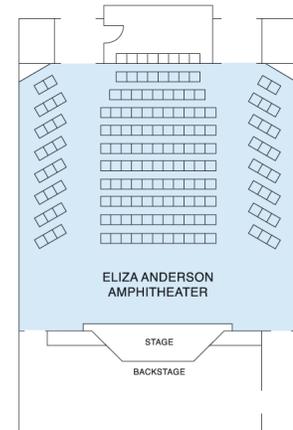
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