

2012 CCSC South Western Region Conference

March 23-24, 2012



Friday, March 23, 2012

1:30 - 2:00 pm	Registration	Alumini House Lobby
2:00 - 2:30 pm	<p>Welcome Speech</p> <p>Dr. Ravi Jain Dean, School of Engineering and Computer Science University of the Pacific</p> <p>Dr. Michael Doherty 2012 CCSC-SW Conference Chair Associate Professor, School of Engineering and Computer Science University of the Pacific</p>	Alumini House Boardroom
2:30 - 3:30 pm	<p>Keynote Presentation I - Chair: Jim Blythe</p> <p>The Beauty and Joy of Computing (BJC), AP CS Principles, and the CS 10K Effort Dr. Dan Garcia, University of California, Berkeley</p>	Alumini House Boardroom
3:30 - 5:00 pm	<p>Papers Session I - Chair: Peter Gabrovsky</p> <ul style="list-style-type: none"> Data Mining for Student Retention Management <i>Shieu-Hong Lin, Biola University, La Mirada, CA</i> Know Your Audience To Increase Diversity: Results of a Study of Community College Women and Men in Computer Science Courses <i>Linda Werner, Jill Denner, Lisa O'Connor, UC Santa Cruz, ETR Associates</i> Classifying problems to explain patterns of correlation on the 1988 Advanced Placement Computer Science Exam <i>Allyson J. Lam, Colleen M. Lewis, Chong (Luke) Lu, Ian B.Ornstein, Dasun Wang, University of California, Berkeley</i> 	Alumini House Boardroom
5:00 - 5:15 pm	Break	
5:15 - 6:45 pm	<p>Tutorial Session I - Chair: Tzu-Yi Chen</p> <ul style="list-style-type: none"> SNAP! (Build Your Own Blocks) <i>Dan Garcia, Luke Segars, University of California, Berkeley Josh Paley, Henry M. Gunn High School</i> 	CTC: Rm 113/114
6:45 pm - 7:00 pm	Break	
7:00 pm - 8:30 pm	<p>Dinner</p> <p>CCSC Regional Meeting (All are welcome)</p>	Alumini House Boardroom

Saturday, March 24, 2012		
8:00 - 9:00am	Breakfast and Registration	DUC Ballroom B
9:00 -10:15am	Keynote Presentation II - Chair: Jim Blythe <p style="text-align: center;">The “Big Tent” of Computer Science: Curricula for Coming Decade Dr. Mehran Sahami, Stanford University</p>	DUC Ballroom A
10:15-10:30am	Break	
10:30 - Noon	Papers Session II - Chair: Myungsook Klassen <ul style="list-style-type: none"> • Using Scrum in a Quarter-length Undergraduate Software Engineering Course <i>Linda Werner, Dominic Arcamone, Ben Ross, UC Santa Cruz</i> • Teaching CAPTCHA in A PHP Programming Course <i>Penn Wu, Pedro Manrique, DeVry University, Sherman Oaks, California</i> • Second Chances <i>Ben Stephenson, University of Calgary</i> 	DUC Ballroom A
Noon-1:30pm	Student Poster Presentations - Chair: Stephanie E. August <p style="text-align: center;">Lunch</p>	DUC Ballroom B
1:30 - 3:00pm	Paper Session III - Chair: Megan Thomas <ul style="list-style-type: none"> • Learning from Database Performance Benchmarks <i>Jennifer Ortiz, Suzanne W. Dietrich, Mahesh B. Chaudhari, Arizona State University</i> • Senior Project: Game Development Using Greenfoot <i>Karen Villaverde, Bretton Murphy, New Mexico State University</i> • Relating Automata to Other Fields <i>Pradip Peter Dey, Mohammad Amin, Gordon W. Romney, Bhaskar Raj Sinha, Ronald F. Gonzales, Alireza Farahani and Hassan Badkoobehi, National University, San Diego</i> 	DUC Ballroom A
3:00 - 3:15pm	Break	
3:15 - 4:15pm	Tutorial Session II CTC: Rm 114 Chair: June Porto <ul style="list-style-type: none"> • Database Animations for Many Majors <i>Suzanne W. Dietrich, Arizona State University and Don Goelman, Villanova</i> 	Tutorial Session III CTC: Rm 113 Chair: Colleen Lewis <ul style="list-style-type: none"> • Proven Strategies That Increase Participation of High School Students in Computing <i>Renee L. Ciezki, Estrella Mountain Community College</i>
4:15 - 4:30 pm	Break	
4:30 - 5:45pm	Keynote Presentation III - Chair: Jim Blythe <p style="text-align: center;">Funding Opportunities through NSF Dr. Guy-Alain Amoussou, National Science Foundation</p>	DUC Ballroom A
5:45 - 6:00pm	CCSC:SW Officer Elections: Myungsook Klassen Student Poster Awards: Youwen Ouyang Concluding Remarks: Michael Doherty	DUC Ballroom A



Keynote Presentation Abstracts

The Beauty and Joy of Computing (BJC), AP CS Principles, and the CS 10K Effort

Dr. Dan Garcia
University of California, Berkeley
March 23, 2012 (2:30 - 3:30pm)
Alumni House Boardroom

BJC was chosen as one of the initial pilots for a new "AP CS: Principles" exam to be introduced in 2015. The purpose of this course is to attract nontraditional computing students (especially women and minorities, but also English majors) to the breadth and depth of ideas in modern computer science. The National Science Foundation wants to prepare 10,000 new high school computer science teachers to teach the new AP course by 2015 (the "CS10K" effort). Under their CE21 (Computing Education for the 21st Century) initiative, we were funded to provide paid intensive six-week summer workshops for high school teachers, including two weeks of face-to-face training, one before and one after four weeks of our online course. This talk will review the status of all of these projects, the development of Build Your Own Blocks (BYOB), a graphical programming environment based on MIT's Scratch that is used in the curriculum, and how faculty, students and high school teachers can engage with these important efforts.

The "Big Tent" of Computer Science: Curricula for the Coming Decade

Dr. Mehran Sahami
Stanford University
March 24, 2012 (9:00 - 10:15am)
DUC Ballroom A

Interest in Computer Science has fluctuated dramatically in the past 20 years. Many factors have been cited for these enrollment dynamics, including changes in the high-tech economy and the general image of computing. In this talk, we begin by examining some of the factors affecting enrollments in CS, analyzing both historical and current trends. In light of this analysis, we then turn our attention to curricular issues, first examining significant changes made in Stanford University's undergraduate CS program, which aim to expand the scope of education in computer science and highlight the diversity of options available in the field. We discuss the results of these changes -- a near doubling in undergraduate CS enrollments in just two years -- and analyze some of the reasons why. We then look at CS curriculum development more broadly, discussing the ACM/IEEE-CS Computer Science Curriculum 2013 effort (known as CS2013). The goal of this effort is to provide concrete curricular guidance for undergraduate CS programs at the international level for the coming decade.



Keynote Presentation Abstracts (cont'd)

Funding Opportunities through NSF

Dr. Guy-Alain Amoussou
National Science Foundation
March 24, 2012 (4:30 - 5:45pm)
DUC Ballroom A

NSF supports projects to improve education in science, technology, engineering, and mathematics (STEM) through several programmes in its Education and Human Resources (EHR) directorate, as well as in its research directorates, including Computer and Information Science and Engineering (CISE). This forum presents a description of some education-related programs in the EHR and CISE directorates, and enables participants to interact with the presenter concerning specific project ideas that could be appropriate for the various programs. We also plan to discuss the requirements and guidelines for the selected programs, describe the review processes as well as strategies for writing competitive proposals.

The selected programs we are planning to discuss are listed here. Complete details about each of the following programs can be found on the NSF website:

- Federal Cyber Service: Scholarships for Service (SFS)
- Advanced Technological Education (ATE)
- Computing Education for the 21st Century (CE21)
- Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES)
- Cyberinfrastructure Training, Education, Advancement, and Mentoring for 21st Century Workforce (CI-TEAM)
- Cyberlearning: Transforming Education (CTE)
- Information Technology Experiences for Students and Teachers (ITEST)
- Research Experiences for Undergraduates Sites (REU Sites)
- Scholarships in Science, Technology, Engineering and Mathematics (S-STEM)
- Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP)