Highlights and Recommendations for Community College Educators at SIGCSE 2016 in Memphis, TN
Wednesday, March 2 – Saturday, March 5

The following highlights and recommendations are based on the Preliminary Program.

Come to the ACM Booth in the Exhibit Hall to enter the CCECC drawing to win either an Amazon Echo, Kindle Fire HD, Bluetooth Speaker, or Surprise Prize. Also visit with the ACM CCECC at the Community College Reception sponsored by Intel Education on Friday, March 4 from 7:00 pm to 8:00 pm in the Nashville room for refreshments, the gadget giveaway, and most importantly, to network with others interested in community college education.

Conference Registration Dates
Early registration closes Tuesday, February 2, 2016
Late registration closes Tuesday, February 23, 2016
On-site registration rates begin Wednesday, March 2, 2016


ACM CCECC Recommendations for Community College Educators
The ACM Committee for Computing Education in Community Colleges (CCECC) is pleased to recommend the following day-by-day Symposium Activities for two-year college educators.

Wednesday, March 2, 2016

- Pre-Symposium event: Computational Thinking: A Chinese Perspective
- Pre-Symposium event: ACM SIGCAS Workshop on Computing for the Social Good: Educational Practices
- Pre-Symposium event: Facilitating POGIL Activities to Support All Students
- Pre-Symposium event: New Educators Workshop (Limited number of $500 travel grants available)
- Pre-Symposium event: Web Development with the MEAN Stack: A Comprehensive Hands-On Tutorial for Educators
- Workshop #102: Making Music with Computers: Creative Programming in Python
- Workshop #105: Guiding Students to Discover CS Concepts and Develop Process Skills using POGIL
- Workshop #108: Using OpenDSA eTextbooks in Your Classroom
ACM CCECC Recommendations for Community College Educators

** indicates CCECC highly recommends; yellow highlight indicates CCECC presentation or event.

Thursday, March 3, 2016

- **NSF Showcase:** Catalyzing Computing and Cybersecurity in Community Colleges (C5 Project)
  - Demos in Exhibit Hall: OpenDSA: An Interactive eTextbook for Computer Science Courses
  - Paper - Research on Learning: As CS Enrollments Grow, Are We Attracting Weaker Students? A Statistical Analysis of Student Performance in Introductory Programming Courses Over Time
  - Panel: Rediscovering the Passion, Beauty, Joy and Awe: Making Computing Fun Again, part
  - **First Timer's Lunch**
- Student Research Competition Poster Session
  - Pair Programming for Teaching Mobile Development
  - Community and Collaboration in an All-Female Immersive Computer Science Program
  - Web-based Visual Programming for Media Computation using Blockly
  - Detecting Insider Attacks with Video Websites using Distributed Image Steganalysis
  - A Simple Line Game with Real-Time Visualization of the Internal Data Structure
  - Syntactic Hint Generation for Introductory Programming Problems
  - Mobile Security via Reverse Tether
- Paper – Pair Programming: Teaching Mobile Development with Pair Programming
- **Paper – CS0:** Security Injections 2.0: Increasing Ability to Apply Secure Coding Knowledge using Segmented and Interactive Modules in CS0
- Panel: Uncommon Teaching Languages
- **Google Supporter Session:** Up Close and Personal with Google CS Programs
- Papers – Scratch: 1) Initialization in Scratch: Seeking Knowledge Transfer
  - 2) ITCH: Individual Testing of Computer Homework for Scratch Assignments
  - 3) Multi-Track Programming Competitions with Scratch
- **Special Session:** ACM Joint Task Force on Cyber Education
- Oracle Supporter Session: Solve it with SQL – Use SQL to Solve a Mystery
- Demos in Exhibit Hall: The Sensorian Shield: Transforming the Raspberry Pi into an IoT Platform
- **NSF Showcase:** Software Tutors for Introductory Programming: Epplets, Codelets and Problets
- **SIGCSE Evening Reception**
- Birds-of-a-Feather – Flock 1:
  - Teaching with Alice
  - Practical Methods for Broadening Participation through Student Engagement in CS1/CS2
  - A Town Meeting: SIGCSE Committee on Expanding the Women-in-Computing Community
  - POGIL in Computer Science for Beginners and Experts
- Birds-of-a-Feather – Flock 2:
  - Web Programming
  - Setting Quantifiable Goals for Broadening Participation in Computing
  - Brainstorming Data Science as a Fluency Course for Non-Majors and as a New Specialization
ACM Committee for Computing Education in Community Colleges
Celebrating 40 Years of Service to Computing Education

- Competency Based Education in Lower-Division Computer Science Taught at Community Colleges **
- Assessment of Security Knowledge, Skills, and Abilities using Hands-on Exercises **

Friday, March 4, 2016

- Demos in Exhibit Hall:
  - Creating and Grading IPython/Jupyter Notebook Assignments with NbGrader
  - CodeSnaps: Block-Based Robotic Programming for the Low-Budget Classroom

- **NSF Showcase**: Integrating Mobile Computing and Security into a Computer Science Curriculum**
- Paper – Tests and Outcomes: Impact of Student Achievement Goals on CS1 Outcomes
- Panel: Future Directions of Block-based Programming
- Panel: Why Don’t Some CS0 Students Succeed? How Important Are Background, Experience, Culture, Aptitude, Habits and Attitude?

- Posters:
  - Integrating Sustainability Concepts into Introductory Programming Courses
  - A Holistic Sequence of Programming Assignments for CS2
  - Combating Perceptions of Computer Scientists: A Short-term Intervention
  - Coding, Designing, and Logistics: How Modes Affect Equity in Computer Science Education
  - Lights, Camera, but no Action: Exploring Affective Audio-Visual Features of Educational Videos
  - Increasing Security Awareness in Undergraduate Courses in Labware **
  - A Certification-Guided Course for Cloud Computing
  - SPOCK – A System for Encouraging Interaction in Small Private Online Courses
  - Broadening the Path to Cybersecurity Professionals in Predominately Undergraduate and Liberal Arts Institutions **
  - Using Learning Analytics to Trace Academic Trajectories of CS and IT Students to Better Understanding Successful Pathways to Graduation
  - Promote Self-Efficacy in Learning of Mobile App and Security with Real-World Relevant Laboratory
  - Data Science for All: An Introductory Course for Non-Majors, in Flipped Format

- Affiliated Event: Alice 3 to Java – Celebration with the Ghost Train crew (Lunch 12:00 – 1:45 pm)
- Papers – CS Ed Research: 1) Development of a Concept Inventory for Computer Science Introductory Programming
  2) A Data-Driven Analysis of Informatively Hard Concepts in Introductory Programming

- **Special Session**: Updating Curricular Guidelines for Associate-Degree Computer Science Programs **

- **NSF Showcase**: Bolstering Security Education in Browser Security **
- NSF Showcase: Increasing Retention in Engineering and Computer Science with a Focus on At-Risk First Year and Sophomore Students
- Paper – International Perspectives: The Performance of Female Computer Science Students across Three Caribbean Islands

SIGCSE 2016 Technical Symposium
Papers – Beale St. Sampler: A Survey of Ethical Agreements in Information Security Courses **
Assessing the Tier-1 Core Learning Outcomes in CS2013 **
Turing’s Craft Supporter Session: Creating Exercises and Engaging with Students
Lightening Talks: A Body of Knowledge for Usable Security and Privacy Education **
Poster Session:
- Assessing the Effectiveness of Experiential-Learning-Based Teaching Tools in Cybersecurity Courses **
- Teaching and Learning in an Introductory Undergraduate Programming Class: A Reflective Autoethnography
- Autograding and Feedback for Snap!, a Visual Programming Language
- A Web-Based Environment for Developing and Utilizing Teaching Languages for Novice Computer Science Students
Community College Reception sponsored by Intel Education (7:00-8:00 pm, Nashville room) **
Workshop #302: Introducing Secure Coding in CS0, CS1, and CS2 **
Workshop #312: AP CS Principles and The Beauty and Joy of Computing Curriculum

Saturday, March 5, 2016

Papers – Out-of-School Activities: Agile Software Development: Study Away **
Gradescope Supporter Session: Build an Autograder in 45 minutes
GitHub Supporter Session: Classroom for GitHub: A Tool Designed for Educators
zyBooks Supporter Session: Improving CS Teaching **
Demos in Exhibit Hall: Bringing Real-World Data and Visualization into Data Structures Courses using BRIDGES
NSF Showcase: Bringing a Rigorous CS Principles Course to the Largest School System in the U.S. **
Special Session: Helping Students to Develop Communication, Teamwork, and Other Process Skills with POGIL **
Luncheon and keynote speaker (12:00 to 2:00 pm)
Affiliated Event (No-Cost): Community College Curriculum Development Workshop: Computer Science and Cybersecurity (3:00 - 6:00 pm, RSVP required @ ccecc.acm.org/contact with SIGCSE Community College Workshop in the subject line.) **