WEDNESDAY WEDNESDAY WEDNESDAY WEDNESDAY WEDNESDAY WEDNESDAY

Wednesday Evening, 7:00pm – 10:00pm

Workshop 1: ITSEED: Hands-on Labs for IT Security Education
Yan Bai, University of Washington Tacoma
Xinli Wang, Michigan Technological University

Workshop 2: Making Games and Apps in Introductory Computer Science
Tiffany Barnes, North Carolina State University
Veronica Catete, North Carolina State University
Andrew Hicks, North Carolina State University
Barry Peddycord III, North Carolina State University

Workshop 3: Reviewing NSF Proposals: Learn about Effective Proposal Writing via the Review Process
Paul Tymann, National Science Foundation
Valerie Barr, National Science Foundation

Workshop 4: Integrating Software Testing into Programming Courses (WISTPC 2014)
Peter Clarke, Florida International University
Yujian Fu, Alabama A&M University
James Kiper, Miami University
Gurisimran Walia, North Dakota State University

Workshop 5: Teaching Computing with the IPython Notebook
Greg Wilson, Mozilla Foundation
Fernando Perez, University of California Berkeley
Peter Norvig, Google Inc.

Workshop 6: Teaching Service-Oriented Programming to CS and SE Undergraduate Students
Xumin Liu, Rochester Institute of Technology
Rajendra Raj, Rochester Institute of Technology
Thomas Reichlmayr, Rochester Institute of Technology
Alex Pantaleev, SUNY Oswego
Chunmei Liu, Howard University

Workshop 7: GENI as a Virtual Laboratory for Networking and Distributed Systems Classes
Vicraj Thomas, GENI Project Office/BBN Technologies
Niky Riga, GENI Project Office/BBN Technologies
Sarah Edwards, GENI Project Office/BBN Technologies

Workshop 8: CABECT: Collaborating Across Boundaries to Engage Undergraduates in Computational Thinking
S. Monisha Pulimood, The College of New Jersey
Kim Pearson, The College of New Jersey
Diane C. Bates, The College of New Jersey

Workshop 9: Enhancing Computer Science Education (CSE) with the Use of 3D Printer Technology
Robert Lutz, Georgia Gwinnett College
Evelyn Brannock, Georgia Gwinnett College

Workshop 10: Scala for Introductory CS and Parallelism
Mark Lewis, Trinity University
Konstantin Läufer, Loyola University Chicago
George Thiruvathukal, Loyola University Chicago

Workshop 11: Teach Algorithm Design and Intractability with a Project-Based Curriculum Centered on a Single Intractable Problem: Three Domains to Choose From
Andrea Lobo, Rowan University - Computer Science
Ganesh Baliga, Rowan University - Computer Science

THURSDAY THURSDAY THURSDAY THURSDAY THURSDAY THURSDAY THURSDAY

Thursday Morning, 8:30 – 10:00am

Speaker to be announced

Thursday Morning, 10:00am – 10:45am

Break & Exhibits

Thursday Morning, 10:45am – 12:00pm

Paper Session: Mathematical Perspectives

Syrus: Providing Practice Problems in Discrete Mathematics With Instant Feedback
Diego Zaccai, The Ohio State University
Aditi Tagore, The Ohio State University
Dustin Hoffman, The Ohio State University
Jason Kirschenbaum, The Ohio State University
Zakariya Bainazarov, The Ohio State University
Harvey Friedman, The Ohio State University
Dennis Pearl, The Ohio State University
Bruce Weide, The Ohio State University

Teaching Theoretical Computer Science using a Cognitive Apprenticeship Approach
Maria Knobelsdorf, New York University
Christoph Kreitz, University of Potsdam
Sebastian Boehne, University of Potsdam

Learning Relational Algebra by Snapping Blocks
Jason Gorman, James Madison University
Sebastian Gsell, James Madison University
Chris Mayfield, James Madison University

Paper Session: Software Engineering: Projects

Course-Embedded Research In Software Development Courses
Sonal Dekhane, Georgia Gwinnett College
Richard Price, Georgia Gwinnett College

Using a Real World Project in a Software Testing Course
Dan Krutz, RIT
Samuel Malachowsky, RIT
Thomas Reichlymayr, RIT

Student Projects Are Not Throwaways: Teaching Practical Software Maintenance in a Software Engineering Course
Claudia Szabo, The University of Adelaide

Paper Session: Gamification

An Experience Report on Using Gamification in Technical Higher Education
Alexandru Iosup, Delft University of Technology
Dick Epema, Delft University of Technology

How to (not) Introduce Badges to Online Exercises
Lassi Haaranen, Aalto University
Petri Ihantola, Aalto University
Lasse Hakulinen, Aalto University

Khan Academy Gamifies Computer Science
Briana Morrison, Georgia Institute of Technology
Betsy DiSalvo, Georgia Institute of Technology

Paper Session: Automated Assessment

Increasing the Effectiveness of Automated Assessment By Increasing Marking Granularity and Feedback Units
Nickolas Falkner, The University of Adelaide
Rebecca Vivian, The University of Adelaide
David Piper, The University of Adelaide
Katrina Falkner, The University of Adelaide

Adaptively Identifying Non-terminating Code When Testing Student Programs
Stephen Edwards, Virginia Tech
Zalia Shams, Virginia Tech
Craig Estep, Virginia Tech

Can computers compare students code solutions like teachers?

Matheus Gaudencio, Universidade Federal de Campina Grande
Ayla Débora Dantas de Souza Rebouças, Universidade Federal da Paraíba
Dalton Dario Serey Guerrero, Universidade Federal de Campina Grande

---

Special session: Bringing CS2013 Recommendations for Parallel and Distributed Computing Into Your CS Curriculum

Richard Brown, St. Olaf College
Elizabeth Shoop, Macalester College
Joel Adams, Calvin College

Special Session: Toward Curricular Guidelines for Cybersecurity

Andrew McGettrick, ACM Education Board
Lillian Cassel, Villanova University
Melissa Dark, Purdue University
Elizabeth Hawthorne, Union County College
John Impagliazzo, Hofstra University, Emeritus

Special Session: Understanding NSF Funding

Jane Prey, NSF
Valerie Barr, NSF
Jan Cuny, NSF
Jeff Forbes, NSF
Harriet Taylor, NSF
Paul Tymann, NSF

Thursday Lunch, 12:00pm – 1:45pm

First Timers' Lunch or Lunch on your own

Thursday Afternoon, 1:45pm – 3:00pm

Paper Session: Engaging Students Through Artistic Expression

Engaging Underrepresented Groups in High School Introductory Computing through Computational Remixing with EarSketch

Jason Freeman, Georgia Tech
Brian Magerko, Georgia Tech
Tom McKlin, The Findings Group, LLC
Mike Reilly, Lanier High School
Justin Permar, Georgia Tech
Cameron Summers, Georgia Tech
Eric Fruchter, Georgia Tech

Dancing Alice: Exploring Embodied Pedagogical Strategies for Learning Computational Thinking
Shaundra Daily, Clemson University
Alison Leonard, Clemson University
Sabarish Babu, Clemson University
Sophie Joerg, Clemson University
Kara Gundersen, Clemson University

Underrepresented Middle School Girls: On the Path to Computer Science through Paper Prototyping
Ashley Robinson, Virginia Tech
Manuel A. Pérez-Quiñones, Virginia Tech

Paper Session: Research: Concept Inventories & Neo-Piagetian Theory

Developing a Pre- and Post-Course Concept Inventory to Gauge Operating Systems Learning
Kevin Webb, Swarthmore College
Cynthia Taylor, Oberlin College

Misconceptions and Concept Inventory Questions for Hash Tables and Binary Search Trees
Kuba Karpierz, University of British Columbia
Steven Wolfman, University of British Columbia

Neo-Piagetian Theory as a Guide to Curriculum Analysis
Claudia Szabo, The University of Adelaide
Katrina Falkner, The University of Adelaide

Paper Session: Active Learning

Active Learning During Lecture Using Tablets
Barry L. Kurtz, Appalachian State University
Rahman Tashakkori, Appalachian State University
James B. Fenwick, Appalachian State University
Ahmad Esmaili, Stony Brook University
Stephen R. Tate, University of North Carolina at Greensboro

Teaching CS 1 with POGIL Activities and Roles
Helen H. Hu, Westminster College
Tricia D. Shepherd, Westminster College

Effectiveness of a Computational Thinking (CS0) Course on Student Analytical Skills
Michele Van Dyne, Montana Tech of the University of Montana
Jeffrey Braun, Montana Tech of the University of Montana

Paper Session: Big Data

Integrating Big Data into the Computing Curricula
Yasin Silva, Arizona State University
Suzanne Dietrich, Arizona State University
Jason Reed, Arizona State University
Lisa Tsosie, Arizona State University

An Undergraduate Degree in Data Science: Curriculum and a Decade of Implementation Experience
Paul Anderson, College of Charleston
James Bowring, College of Charleston
Renée McCauley, College of Charleston
George Pothering, College of Charleston
Christopher Starr, College of Charleston

CS Principles Goes to Middle School: Learning How to Teach "Big Data"
Philip Buffum, North Carolina State University
Allison Martinez-Arocho, Meredith College
Megan Frankosky, North Carolina State University
Fernando Rodriguez, North Carolina State University
Eric Wiebe, North Carolina State University
Kristy Boyer, North Carolina State University

Paper Session: Games

Lessons Learned and Recommended Strategies for Game Development Components in a Computer Literacy Course
Robert Collier, University of Calgary
Jalal Kawash, University of Calgary

Use and Development of Entertainment Technologies in After School STEM Programs
Veronica Catete, NC State University
Kathleen Wassell, NC State University
Tiffany Barnes, NC State University

Making Games a "Snap" with Stencyl – A Summer Computing Workshop for K-12 Teachers
Jiangjiang Liu, Lamar University
Cheng-Hsien Lin, Lamar University
Joshua Wilson, Lamar University
David Hemmenway, Lamar University
Ethan Hasson, Lamar University
Zebulun Barnett, Lamar University
Yingbo Xu, Lamar University

Panel: Panel of Computing Students with Disabilities
Richard Ladner, University of Washington

Panel: ACM/IEEE-CS Computer Science Curricula 2013: Implementing the Final Report
Mehran Sahami, Stanford University
Steve Roach, Exelis, Inc.
Ernesto Cuadros-Vargas, San Pablo Catholic University
Elizabeth Hawthorne, Union County College
Amruth Kumar, Ramapo College of New Jersey
Richard LeBlanc, Seattle University
David Reed, Creighton University
Remzi Seker, Embry-Riddle Aeronautical University

Special Session: Engaging Mathematical Reasoning Exercises
Joseph Hollingsworth, Indiana University Southeast
Murali Sitaraman, Clemson University

Thursday Afternoon, 3:00pm – 3:45pm

Break & Exhibits

Thursday Afternoon, 3:45am – 5:00pm

Paper Session: Design: Courses & Curricula

The Design of Sweden's First 5-year Computer Science and Software Engineering Program
Fredrik Heintz, Linköping University
Inger Erlander Klein, Linköping University

Bringing Business Intelligence to Healthcare Informatics Curriculum: A Preliminary Investigation
Guangzhi Zheng, Southern Polytechnic State University
Chi Zhang, Southern Polytechnic State University
Lei Li, Southern Polytechnic State University

An ACM 2013 Exemplar Course Integrating Fundamentals, Languages, and Software Engineering
Jason Hallstrom, Clemson University
Cathy Hochrine, Clemson University
Jacob Sorber, Clemson University
Murali Sitaraman, Clemson University

Paper Session: Tactile Computing

Hands-on Introduction to Computer Science at the Freshman Level
Raghuraman Balasubramanian, UW-Madison
Zachary York, UW-Madison

Matthew Dorran, UW-Madison
Aritra Biswas, UW-Madison
Timur Girgin, UW-Madison
Karthikeyan Sankaralingam, UW-Madison

Ethnocomputing with Electronic Textiles: Culturally Responsive Open Design to Broaden Participation in Computing in American Indian Youth and Communities
Yasmin Kafai, University of Pennsylvania
Kristin Searle, University of Pennsylvania
Cristóbal Martinez, Arizona State University
Bryan Brayboy, Arizona State University

Tracking @stemxcomet: Teaching Programming to Blind Students via 3D Printing, Crisis Management, and Twitter
Shaun Kane, University of Maryland Baltimore County
Jeffrey Bigham, Carnegie Mellon University

Paper Session: Focus on K-12: Growing the Profession and Professional Development

STEM Teaching as an Additional Profession for Scientists and Engineers: The Case of Computer Science Education
Orit Hazzan, Technion – Israel Institute of Technology
Noa Ragonis, Beit Berl College & Technion – Israel Institute of Technology

Spreading the Word: Introducing Pre-Service Teachers to Programming in the K-12 Classroom
Richard (Scott) Bell, Kansas State University
Tim Frey, Doane College
Eugene Vasserman, Kansas State University

Research Experience for Teachers: Data Analysis & Mining, Visualization, and Image Processing
Rahman Tashakkori, Appalachian State University
Mitchell Parry, Appalachian State University
Rebecca Cooper, West Wilkesboro High School
Nicholas Westveer, Watauga High School
Jessica Jenkins, Watauga High School
Adam Benoit, Lincolnton High School

Paper Session: Collecting and Analyzing Student Data I

Measuring Demographics and Performance in Computer Science Education at a Nationwide Scale Using AP CS Data
Barbara Ericson, Georgia Tech, College of Computing
Mark Guzdial, Georgia Tech, School of Interactive Computing

Blackbox: A Large Scale Repository Of Novice Programmers' Activity
Neil Brown, University of Kent
Michael Kolling, University of Kent
Davin McCall, University of Kent
Ian Utting, University of Kent

Using CodeBrowser to Seek Differences Between Novice Programmers
Kenny Heinonen, University of Helsinki
Kasper Hirvikoski, University of Helsinki
Matti Luukkainen, University of Helsinki
Arto Vihavainen, University of Helsinki

Paper Session: Projects and Capstone Courses

An Assessment Model for Large Project Courses
Maria Vasilevskaya, Linköping University
Kristian Sandahl, Linköping University
David Broman, UC Berkeley and Linköping University

Adding Unit Test Experience to a Usability Centered Project Course
Christopher Brown, Michigan Technological University
Robert Pastel, Michigan Technological University
Marika Seigel, Michigan Technological University
Charles Wallace, Michigan Technological University
Linda Ott, Michigan Technological University

A Service Learning Practicum Capstone
Aaron Bloomfield, University of Virginia
Mark Sherriff, University of Virginia
Kara Williams, Center for Nonprofit Excellence

Special Session: Alternatives to Lecture: Experience Peer Instruction and Pedagogical Code Reviews
Scott Grissom, Grand Valley State University
Chris Hundhausen, Washington State University
Phillip Conrad, University of California Santa Barbara

Panel: Rediscovering the Passion, Beauty, Joy, and Awe: Making Computing Fun Again, Part 7
Daniel D. Garcia, UC Berkeley
Jennifer Campbell, University of Toronto
Rebecca Dovi, Patrick Henry High School
Cay Horstmann, San José State University

Special Session: Diverse Learners, Diverse Courses, Diverse Projects: Learning from Challenges in New Directions

Owen Astrachan, Duke University
R. Brook Osborne, code.org
Jeff Gray, University of Alabama
Irene Lee, Santa Fe Institute
Calvin Lee, University of Texas, Austin

FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY FRIDAY

Friday Morning, 8:30am – 10:00am

Speaker to be announced

Friday Morning, 10:00am – 10:45am

Break & Exhibits

Friday Morning, 10:45am – 12:00pm

Paper Session: Assessment and Evaluation

Importance of Early Performance in CS1: Two Conflicting Assessment Stories
Leo Porter, Skidmore College
Daniel Zingaro, University of Toronto

Reinventing Homework as Cooperative, Formative Assessment
Don Blaheta, Longwood University

Evaluating an Inverted CS1
Jennifer Campbell, University of Toronto
Diane Horton, University of Toronto
Michelle Craig, University of Toronto
Paul Gries, University of Toronto

Paper Session: CS2

Injecting Parallel Computing into CS2
Joel Adams, Calvin College

On the Efficacy of Board Game Strategy Development as a First-Year CS Project
Ivona Bezakova, Rochester Institute of Technology
James Heliotis, Rochester Institute of Technology
Sean Strout, Rochester Institute of Technology

Transforming Introductory Computer Science Projects via Real-Time Web Data
Austin Bart, Virginia Tech
Eli Tilevich, Virginia Tech
Simin Hall, Virginia Tech
Tony Allevato, Virginia Tech
Clifford A. Shaffer, Virginia Tech

Paper Session: Classroom Management

Accommodating BYOD in Education with Virtual Machines: Successfully Using VMs at Scale in Support of Undergraduate CS Education
Andy Sayler, University of Colorado
Dirk Grunwald, University of Colorado
John Black, University of Colorado
Elizabeth White, University of Colorado

Framing Classroom Climate for Student Learning and Retention in Computer Science
Lecia Barker, University of Texas
Melissa O'Neill, Harvey Mudd College
Nida Kazim, University of Texas

Multiple Case Study of Nerd Identity in a CS1 Class
Don Davis, University of Texas at San Antonio
Timothy Yuen, University of Texas at San Antonio

Paper Session: Soft Skills: Industry Perspectives

Workplace Scenarios to Integrate Communication Skills and Content: A Case Study
Mark Hoffman, Quinnipiac University
Paul Anderson, Elon University
Magnus Gustafsson, Chalmers University of Technology

Comparing Educational Experiences and On-the-Job Needs of Educational Software Designers
Marisa Exter, Purdue University

Evaluating Industry-Inspired Pair Programming Communication Guidelines with Undergraduate Students
Mark Zarb, University of Dundee
Janet Hughes, University of Dundee
John Richards, IBM T.J. Watson Research Center

Paper Session: Focus on K-12: Middle School

Camp CyberGirls: Using a Virtual World to Introduce Computing Concepts to Middle School Girls
Caitlin Hulsey, Clemson University

Toni Pence, Clemson University
Larry Hodges, Clemson University

MyCS: CS For Middle-Years Students And Their Teachers
Elizabeth Schofield, Harvey Mudd College
Michael Erlinger, Harvey Mudd College
Zachary Dodds, Harvey Mudd College

Remedying Misperceptions of Computer Science Among Middle School Students
Shuchi Grover, Stanford University
Roy Pea, Stanford University

Panel: CS Professional Development MOOCs
Erin Mindell, Google
Karen Brennan, Harvard University
Gwendolyn Britton, Colorado State University-Global Campus
Jennifer S. Kay, Rowan University
Jennifer Rosato, College of St. Scholastica

Panel: Experiences Mapping and Revising Curricula with CS2013
David Reed, Creighton University
Andrea Danyluk, Williams College
Elizabeth K. Hawthorne, Union County College
Mehran Sahami, Stanford University
Henry Walker, Grinnell College

Panel: Looking Outside: What Can Be Learnt From Computing Education Around The World?
Annemieke Craig, Deakin University
Carsten Kleiner, University of Applied Sciences & Arts Hanover
Catherine Lang, La Trobe University
Judith Gal-Ezer, The Open University of Israel
Michail N. Giannakos, Norwegian University of Science and Technology

Friday Lunch, 12:00pm – 1:45pm

Lunch on your own

Friday Afternoon, 1:45pm – 3:00pm

Paper Session: Web-based Instruction
Online Discussions: Improving Education in CS?
Radu Mihail, University of Kentucky
Beth Rubin, DePaul University
Judy Goldsmith, University of Kentucky

CrowdGrader: A Tool For Crowdsourcing the Evaluation of Homework Assignments
Luca de Alfaro, UCSC
Michael Shavlovsky, UCSC

Teaching Composition Quality at Scale
John DeNero, University of California, Berkeley
Stephen Martinis, University of California, Berkeley

Paper Session: Recruitment and Retention of Underrepresented Groups

A Journey toward Obtaining Our First NSF S-STEM Grant
An-I Wang, Florida State University
Gary Tyson, Florida State University
David Whalley, Florida State University
Robert van Engelen, Florida State University
Zhenghao Zhang, Florida State University

A Support Program for Introductory CS Courses that Improves Student Performance and Retains Students from Underrepresented Groups
Tia Newhall, Swarthmore College
Lisa Meeden, Swarthmore College
Andy Danner, Swarthmore College
Ameet Soni, Swarthmore College
Frances Ruiz, Swarthmore College
Richard Wicentowski, Swarthmore College

Project Rise Up 4 CS: Increasing the Number of Black Students who Pass Advanced Placement CS A
Barbara Ericson, Georgia Institute of Technology
Shelly Engelman, The Findings Group
Tom McKlin, The Findings Group
Ja'Quan Taylor, Georgia Institute of Technology

Paper Session: Software Engineering: Courses

Improving Software Engineering Education through an Empirical Approach - Lessons Learned from Latin-American Experiences
Andres Neyem, Pontificia Universidad Católica de Chile
Jose Benedetto, Pontificia Universidad Católica de Chile
Andres Chacon, Pontificia Universidad Católica de Chile

Selecting Open Source Software Projects to Teach Software Engineering
Therese Smith, University. of Connecticut
Swapna Gokhale, University of Connecticut
Robert McCartney, University. of Connecticut

Evaluating GameDevTycoon for Teaching Software Engineering
Claudia Szabo, The University of Adelaide

Paper Session: Peer Instruction

Peer Instruction Contributes to Self-Efficacy in CS1
Daniel Zingaro, OISE - University of Toronto

New CS1 Pedagogies and Curriculum, The Same Success Factors?
Christine Alvarado, University of California, San Diego
Cynthia Lee, Stanford University
Gary Gillespie, University of California, San Diego

Social Effects of Pair Programming Mitigate Impact of Bounded Rationality
Zhen Li, University of Georgia
Eileen Kraemer, University of Georgia

Paper Session: Interdisciplinary Courses and Curricula

Interdisciplinary Computing Classes: Worth the Effort
Lori Carter, Point Loma Nazarene University

Computing in the Arts: A Model Curriculum
Renée McCauley, College of Charleston
Bill Manaris, College of Charleston
Marian Mazzone, College of Charleston
William Bares, College of Charleston

E pluribus, plurima: Interdisciplinary Class Groups Yield Exceptional Results
Debra Goldberg, University of Colorado Boulder
Elizabeth White, University of Colorado Boulder

Panel: Guided Inquiry Learning in Context: Perspectives on POGIL in CS
Helen Hu, Westminster College
Clifton Kussmaul, Muhlenberg College
Matthew Lang, Moravian College
Chris Mayfield, James Madison University
Tammy Pirmann, Springfield Township School District

Panel: Teaching Tips We Wish They'd Told Us Before We Started, High School Edition
Daniel D. Garcia, UC Berkeley
Baker Franke, The University of Chicago Laboratory Schools
Stephanie Hoeppner, Clermont Northeastern Schools
Josh Paley, Henry M. Gunn High School

Special Session: Introductory Programming Meets the Real World: Using Real Problems and Data in CS1

Ruth Anderson, University of Washington
Michael Ernst, University of Washington
Robert Ordonez, Southern Adventist University
Paul Pham, Evergreen College
Steven Wolfman, University of British Columbia

Friday Afternoon, 3:00pm – 3:45pm

Break & Exhibits

Friday Afternoon, 3:45pm – 5:00pm

Paper Session: Research: Predictors, Creative Thinking, Co-linking Courses

No Tests Required: Comparing Traditional and Dynamic Predictors of Programming Success
Christopher Watson, Durham University
Frederick Li, Durham University

Integrating Computational and Creative Thinking to Improve Learning and Performance in CS1
Leen-Kiat Soh, University of Nebraska, Lincoln
Duane Shell, University of Nebraska, Lincoln
Melissa Hazley, University of Nebraska, Lincoln
Elizabeth Ingraham, University of Nebraska, Lincoln
L. D. Miller, University of Nebraska, Lincoln

Perspectives on Co-linking Design and Development Courses in CS
Yolanda Jacobs Reimer, University of Montana
Michael Cassens, University of Montana

Paper Session: Focus on K-12: Informal Education, Curriculum, and Robots

They Can't Find Us: The Search for Informal CS Education
Betsy DiSalvo, Georgia Institute of Technology
Cecili Reid, Georgia Institute of Technology
Parisa Khanipour Roshan, Georgia Institute of Technology

Curriculum is Not Enough: The Educational Theory and Research Foundation of the Exploring Computer Science Professional Development Model
Joanna Goode, University of Oregon
Jane Margolis, UCLA
Gail Chapman, UCLA

Sneaking In Through The Back Door: Introducing K-12 Teachers to Robot Programming
Jennifer Kay, Rowan University
Janet Moss, Rowan University
Shelly Engelman, The Findings Group
Tom McKlin, The Findings Group

Paper Session: Focus on K-12: Before Middle School

Quantitative Correlation between Ability to Compute and Student Performance in a Primary School
Osvaldo Luiz Oliveira, Faculty of Campo Limpo Paulista

Identifying Elementary Students' Pre-Instructional Ability to Develop Algorithms and Step-by-Step Instructions
Hilary Dwyer, UC Santa Barbara
Charlotte Hill, UC Santa Barbara
Stacey Carpenter, UC Santa Barbara
Danielle Harlow, UC Santa Barbara
Diana Franklin, UC Santa Barbara

Code Club: Bringing Programming to UK Primary Schools
Neil Smith, The Open University
Clare Sutcliffe, Code Club
Linda Sandvik, Code Club

Paper Session: Security Among the Cloud

Teaching the Security Mindset with Reference Monitors
Justin Cappos, NYU-Poly
Richard Weiss, The Evergreen State College

Harnessing the Cloud for Teaching Cybersecurity
Khaled Salah, Khalifa University of Science, Technology and Research

Taking a Walk on the Wild Side: Teaching Cloud Computing on Distributed Research Testbeds
Yanyan Zhuang, University of British Columbia
Chris Matthews, University of Victoria
Stephen Tredger, University of Victoria
Steven Ness, University of Victoria
Jesse Short-Gershman, University of Victoria
Li Ji, University of Victoria
Niko Rebenich, University of Victoria
Andrew French, University of Victoria
Josh Erickson, University of Victoria
Kyliah Clarkson, University of Victoria
Yvonne Coady, University of Victoria

Rick McGeer, Hewlett-Packard Laboratories

Panel: CS Principles Professional Development: Only 9,500 to go! Lessons Learned from our CS10K Summer 2013 PD

Jan Cuny, NSF
Diane A. Baxter, UC San Diego
Daniel D. Garcia, UC Berkeley
Jeff Gray, University of Alabama
Ralph Morelli, Trinity College

Panel: Blocks-based Programming Languages: Simplifying Programming for Different Audiences with Different Goals

Paul Medlock-Walton, Massachusetts Institute of Technology
Kyle Harms, Washington University in St. Louis
Eileen Kraemer, University of Georgia
Karen Brennan, Harvard University
Daniel Wendel, Massachusetts Institute of Technology

Panel: Recruit and Retain Women in Undergraduate Computing: Success Stories using Research-Based Practices

Leisa D. Thompson, National Center for Women & Information Technology /University of Virginia
Crystal Eney, University of Washington
Ruth Davis, Santa Clara University
Tiffany Grady, University of Texas - Austin

Friday Evening, 7:00pm – 10:00pm

Workshop 12: Exploring Computer Science: Computational Practices in Action

Gail Chapman, University of California, Los Angeles
Joanna Goode, University of Oregon

Workshop 13: Teaching Shared Memory Parallel Concepts with OpenMP

Joel Adams, Calvin College
Richard Brown, St. Olaf College
Elizabeth Shoop, Macalester College

Workshop 14: Creating Stimulating, Relevant, and Manageable Introductory Computer Science Projects that Utilize Real-Time Web-Based Data

Eli Tilevich, Virginia Tech
Clifford Shaffer, Virginia Tech
Austin Cory Bart, Virginia Tech

Workshop 15: Computational Music Remixing with EarSketch

Brian Magerko, Georgia Tech
Jason Freeman, Georgia Tech
Mike Reilly, Lanier High School
Christopher Michaud, Georgia Tech

Workshop 16: Scratch + Xbox Kinect: A Magical Combination for Outreach
Victor Norman, Calvin College

Workshop 17: The Absolute Beginner's Guide to JUnit in the Classroom
Stephen Edwards, Virginia Tech
Manuel Perez-Quinones, Virginia Tech

Workshop 18: Teaching with HFOSS to Provide Students with Real World Experience: An Introduction
Darci Burdge, Nassau Community College
Lori Postner, Nassau Community College
Becka Morgan, Western Oregon University
Heidi Ellis, Western New England University
Stoney Jackson, Western New England University
Gregory Hislop, Drexel University
Michelle Purcell, Drexel University

Workshop 19: Guiding Students to Discover CS Concepts and Develop Process Skills using POGIL
Clifton Kussmaul, Muhlenberg College
Helen Hu, Westminster College
Matthew Lang, Moravian College

Workshop 20: Mobile Computational Thinking with App Inventor 2
Franklyn Turbak, Wellesley College
Fred Martin, University of Massachusetts Lowell
Shaileen Pokress, Massachusetts Institute of Technology
Ralph Morelli, Trinity College
Mark Sherman, University of Massachusetts Lowell
David Wolber, University of San Francisco

Workshop 21: Using the New Lego MindStorms EV3 Robotics Platform in CS Courses
Frank Klassner, Villanova University
Ben Schafer, University of Northern Iowa

Workshop 22: AP CS Principles and The Beauty and Joy of Computing Curriculum
Daniel D. Garcia, UC Berkeley
Brian Harvey, UC Berkeley
Tiffany Barnes, North Carolina State University
Dan Armendariz, UC Berkeley
Jon McKinsey, UC Berkeley
Zachary MacHardy, UC Berkeley
Omoju Miller, UC Berkeley
Barry Peddycord III, North Carolina State University
Eugene Lemon, Ralph J Bunche High School

Sean Morris, Albany High School
Josh Paley, Henry M. Gunn High School

Workshop 23: Hands-on Cybersecurity Exercises in the EDURange Framework
Richard Weiss, The Evergreen State College
Michael Locasto, The University of Calgary
Jens Mache, Lewis & Clark College
Vincent Nestler, Capitol College

SATURDAY SATURDAY SATURDAY SATURDAY SATURDAY SATURDAY SATURDAY

Saturday Morning, 9:00am – 10:15am

Paper Session: Operating Systems and Programming Languages
Teaching Operating Systems Using Code Review
Christoffer Dall, Columbia University
Jason Nieh, Columbia University

A Virtual Graphics Card for Teaching Device Driver Design
Christopher Corsi, School of Computing, Clemson University
Robert Geist, School of Computing, Clemson University
Dennis Lingerfelt, School of Computing, Clemson University

PLCC: A Programming Languages Compiler-Compiler
Timothy Fossum, SUNY College at Potsdam

Paper Session: Soft Skills: Academic Perspectives
Teaching and Learning Computer Science Soft Skills Using Soft Skills: The Students' Perspective
Orit Hazzan, Technion – Israel Institute of Technology
Gadi Har-Shai, Technion – Israel Institute of Technology

Promoting Ecoliteracy in an Introductory Database Systems Course: Activities for the First Week
Daniela Inclezan, Miami University
Luis Pradanos, Miami University

Developing CS/SE Students' Communication Abilities through a Program-Wide Framework
Janet Burge, Miami University
Mladen Vouk, NC State University
Paul Anderson, Elon University
David Wright, NC State University
Gerald Gannod, Miami University
Mike Carter, NC State University

Paper Session: What We Say, What They Do

Metaphors We Teach By
Joseph P. Sanford, Tufts University
Aaron Tietz, Tufts University
Saad Farooq, Tufts University
Samuel Guyer, Tufts University
R. Benjamin Shapiro, Tufts University

'Explain in Plain English' Questions Revisited: Data Structures Problems
Malcolm Corney, Queensland University of Technology
Sue Fitzgerald, Metropolitan State University
Brian Hanks, BFH Educational Consulting, Seattle WA
Raymond Lister, University of Technology, Sydney
Renee McCauley, College of Charleston
Laurie Murphy, Pacific Lutheran University

A Formative Study of Influences on Student Testing Behaviors
Kevin Buffardi, Virginia Tech
Stephen H. Edwards, Virginia Tech

Paper Session: Extending Frameworks
Using a Software Framework to Enhance Online Teching of Shader-Based OpenGL
James Miller, Electrical Engineering & Computer Science; University of Kansas

Dynamic Program Visualizations – An Experience Report
James Cross, Auburn University
Dean Hendrix, Auburn University
Larry Barowski, Auburn University

Opportunities for Android Projects in a CS1 Course
Ivaylo Ilinkin, Gettysburg College

Special Session: "Hands-On" Tutorial: Teaching Software Correctness with RESOLVE
Murali Sitaraman, Clemson University
Bruce Weide, Ohio State University

Special Session: Nifty Assignments
Nick Parlante, Stanford University
Julie Zelenski, Stanford University

Panel: Interdisciplinary Computing in Many Forms

Ursula Wolz, Riversound Solutions, LLC
Lillian (Boots) Cassel, Villanova University
Bonnie MacKellar, St. John's University
Joan Peckham, University of Rhode Island
Carol Spradling, Northwest Missouri State
Han Reichgelt, Southern Polytechnic State University
Suzanne Westbrook, University of Arizona

Panel: Teaching Parallel Design Patterns to Undergraduates in Computer Science

Richard Brown, St. Olaf College
Joel Adams, Calvin College
Clayton Ferner, UNC Wilmington
Elizabeth Shoop, Macalester College
Barry Wilkinson, UNC Charlotte

Saturday Morning, 10:15am – 10:45am

Break & Exhibits

Saturday Morning, 10:45am – 12:00pm

Paper Session: Focus on K-12: Outreach and Computational Thinking

Five Years of Game Programming Outreach: Understanding Student Differences

Antti-Jussi Lakanen, Department of Mathematical Information Technology, University Of Jyväskylä
Ville Isomöttönen, Department of Mathematical Information Technology, University Of Jyväskylä
Vesa Lappalainen, Department of Mathematical Information Technology, University Of Jyväskylä

Challenging Stereotypes and Changing Attitudes: The Effect of a Brief Programming Encounter on Adults' Attitudes toward Programming

Polina Charters, University of Washington
Michael Lee, University of Washington
Andrew Ko, University of Washington
Dastyni Loksa, University of Washington

The Consume - Create Spectrum : Balancing Convenience and Computational Thinking in STEM Learning

Ashok Basawapatna, University of Colorado Boulder
Alexander Repenning, University of Colorado Boulder
Kyu Han Koh, University of Colorado Boulder
Mark Savignano, University of Northern Colorado Greeley

Paper Session: MOOCs

Learning to Program as a Social Activity

Joe Warren, Rice University
Scott Rixner, Rice University

John Greiner, Rice University
Stephen Wong, Rice University

An Environment for Learning Interactive Programming
Terry Tang, Rice University
Scott Rixner, Rice University
Joe Warren, Rice University

Teaching Creative Problem Solving in a MOOC
Pascal Van Hentenryck, NICTA and The University of Melbourne
Carleton Coffrin, NICTA

Paper Session: Collecting and Analyzing Student Data II

Introducing Undergraduate Database Students to K-12 Education Research
Chris Mayfield, James Madison University
Carole Ottenheimer, Center for Innovative Technology
Bethann Canada, Virginia Department of Education
Brooke Bell, Center for Innovative Technology

Remediation and Student Success in CIS Programs
Douglas Kranch, North Central State College

Identifying Challenging CS1 Concepts in a Large Problem Dataset
Yuliya Cherenkova, University of Toronto Mississauga
Daniel Zingaro, University of Toronto Mississauga
Andrew Petersen, University of Toronto Mississauga

Paper Session: Tools

Interactive Conflictive Animations for Engaging Programming Education
Andrés Moreno, University of Eastern Finland
Erkki Sutinen, University of Eastern Finland
Mike Joy, University of Warwick

RSAvisual: A Visualization Tool for the RSA Cipher
Jun Tao, Michigan Technological University
Jun Ma, Michigan Technological University
Melissa Keranen, Michigan Technological University
Jean Mayo, Michigan Technological University
Ching-Kuang Shene, Michigan Technological University
Chaoli Wang, Michigan Technological University

Pythy: Improving the Introductory Python Programming Experience
Stephen Edwards, Virginia Tech, Dept. of Computer Science
Daniel Tilden, Virginia Tech, Dept. of Computer Science
Anthony Allevato, Virginia Tech, Dept. of Computer Science

Special Session: Tutorial: Team Projects with Alice 3
Wanda Dann, Carnegie Mellon University
Dennis Cosgrove, Carnegie Mellon University
Don Slater, Carnegie Mellon University
Dave Culyba, Carnegie Mellon University

Special Session: Advanced Placement Computer Science: AP Computer Science A and AP Computer Science Principles
Paul Tymann, Rochester Institute of Technology
Robert Martin, School for the Talented and Gifted
Frances Trees, Rutgers, the State University of New Jersey
Richard Kick, Conejo Valley Unified School District
Lien Diaz, College Board, AP Program

Special Session: A Public/Private Partnership for Expanding Computer Science in Schools
Owen Astrachan, Duke University
Amy Briggs, Middlebury College
R. Brook Osborne, code.org
Pat Yongpradit, code.org
Gail Chapman, UCLA/Exploring Computer Science
Joanna Goode, University of Oregon

Panel: Data Science as an Undergraduate Degree
Paul Anderson, College of Charleston
James McGuffee, Northern Kentucky University
David Uminsky, University of San Francisco

Saturday Lunch, 12:00pm – 2:00pm

SIGCSE Luncheon – Speaker to be announced

Saturday Afternoon , 3:00pm – 6:00pm

Workshop 24: Server-side Web Development with JavaScript and Node.js
Ariel Ortiz, Tecnologico de Monterrey, Campus Estado de Mexico

Workshop 25: Artbotics with Lego Mindstorms
Adam Norton, University of Massachusetts Lowell
Holly Yanco, University of Massachusetts Lowell

Workshop 26: Using the AP CS Labs in the Classroom
Paul Tymann, Rochester Institute of Technology
Lester Wainright, Charlottesville High School
Robert Martin, School for the Talented and Gifted

Workshop 27: Learn Java in N Games
Peter Drake, Lewis & Clark College
Mark Goadrich, Centenary College of Louisiana

Workshop 28: Chapel: A Versatile Tool for Teaching Undergraduates Parallell Programming
David Bunde, Knox College
Kyle Burke, Colby College

Workshop 29: Introduction to Analysing the BlueJ Blackbox Data
Neil Brown, University of Kent

Workshop 30: Introducing Secure Coding in CS0, CS1, and CS2
Blair Taylor, Towson University
Siddharth Kaza, Towson University
Elizabeth K. Hawthorne, Union County College

Workshop 31: Projects for Computing Summer Camps for 4th-12th grade Students
Barbara Ericson, Georgia Institute of Technology
Christopher Michaud, Marist School
Xin Xu, Georgia Gwinnett College
Krishnendu Roy, Valdosta State University

Workshop 32: SNAP! (Build Your Own Blocks)
Brian Harvey, University of California, Berkeley
Daniel Garcia, University of California, Berkeley
Tiffany Barnes, North Carolina State University
Nathaniel Titterton, University of California, Berkeley
Omoju Miller, University of California, Berkeley
Dan Armendariz, University of California, Berkeley
Jon McKinsey, University of California, Berkeley
Zachary Machardy, University of California, Berkeley
Eugene Lemon, Ralph J Bunche High School
Sean Morris, Albany High School
Josh Paley, Henry M. Gunn High School

Workshop 33: Puzzle-Based Learning: Introducing Creative Thinking and Problem Solving for Computer Science and Engineering
Raja Sooriamurthi, Carnegie Mellon University
Nickolas Falkner, University of Adelaide

Ed Meyer, Baldwin Wallace University
Zbigniew Michalewicz, University of Adelaide

Workshop 34: Dynamic Program Visualizations for Java
James Cross, Auburn University
Dean Hendrix, Auburn University
David Umphress, Auburn University

Workshop 35: Mobile Computer Science Principles: A Professional Development Sampler for Teachers
Ralph Morelli, Trinity College
David Wolber, University of San Francisco
Jennifer Rosato, College of St. Scholastica
Chinma Uche, Greater Hartford Academy of Mathematics and Science
Pauline Lake, Trinity College