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 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 Kirshenbaum, 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*

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**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*

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**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 Remaking 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

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**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

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**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
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

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
Panel: Panel of Computing Students with Disabilities

Richard Ladner, University of Washington

Thursday Evening, 5:10pm – 6:00pm

Birds of a Feather: Flock I

Promoting Professional Responsibility and Ethics: The Pledge of the Computing Professional

John Estell, Ohio Northern University
Ken Christensen, University of South Florida

An exploration of mentor-protégé relationships and how to train mentors at many academic levels.

Elissa Redmiles, University of Maryland, College Park - Maryland Center for Women in Computing
Jandelyn Plane, University of Maryland, College Park - Maryland Center for Women in Computing

Privacy between Technological Capabilities and Society’s Expectations

Ernst Leiss, University of Houston
Lila Ghemri, Texas Southern University

CSTA Chapters: Building a CS Community

Frances P. Trees, Rutgers University
Lissa Clayborn, CSTA

What Analogies/Metaphors/Similes Do You Use When Teaching CS Concepts?

William (Bill) Pulling, Fanshawe College, London, Ontario

Teaching Track Faculty in CS

Mark Sherriff, University of Virginia
Daniel Garcia, University of California at Berkeley
Jody Paul, Metropolitan State College at Denver

Fighting Impostor Syndrome

Aidan Feldman, GitHub
Matthew McCullough, GitHub

No news in database education by all accounts – seriously?
Carsten Kleiner, University of Applied Sciences & Arts Hannover

A Town Meeting: SIGCSE Committee on Expanding the Women-in-Computing Community
Glória Townsend, DePauw University

State-Level Advocacy for Computing Education Reform
W. Richards Adrion, University of Massachusetts Amherst

Toolmaker or Scientist?
Brian Patterson, Oglethorpe University
William Doane, Science and Technology Policy Institute

Inspiring a Love of Computer Science through the Education of our Youth
Paige Meeker, Presbyterian College

Using the Cloud to Replace Traditional Physical Networking Laboratories
John Russo, Wentworth Institute of Technology
Magdy Ellabidy, Wentworth Institute of Technology

Debugging Teacher Certification
Jian Zhang, Texas Woman’s University
Philip Sweany, University of North Texas

Introduction to Programming for Scientists and Engineers (IPSE)
Peter Froehlich, Johns Hopkins University
Joanne Selinski, Johns Hopkins University

China’s Perspective from the viewpoint of Computational Thinking on CS1 for Non-majors
Ming Zhang, Peking University
Bo Li, Xian Jiaotong University
Ginnie Lo, University of Oregon

IT Curricular Guidance for Associate-Degree Granting Institutions
Elizabeth Hawthorne, Union County College
Robert Campbell, CUNY Graduate Center
Jim Nichols, Estrella Mountain Community College
Cara Tang, Portland Community College
Cindy Tucker, Bluegrass Community and Technical College

CATs – not just a furry friend. Using Active Learning in your classrooms
Nina Onesti, IU School of Informatics and Computing
Saul Blanco, IU School of Informatics and Computing
Mitja Hmeljak, IU School of Informatics and Computing
Dan Richert, IU School of Informatics and Computing
J Duncan, IU School of Informatics and Computing

Preparing Computer Science Students for a Sustainable Future
Daniela Incllezan, Miami University

Thursday Evening, 6:10pm – 7:00pm

Birds of a Feather: Flock II

How to Decode Student Bottlenecks to Learning in Computer Science
Adrian German, Indiana University Bloomington
Suzanne Menzel, Indiana University Bloomington
Joan Middendorf, Indiana University Bloomington
John Duncan, Indiana University Bloomington

Engaging College Students in Service Learning to Grow the K-12 Computing Pipeline and Prepare the 21st Century Workforce
Jamie Payton, University of North Carolina at Charlotte
Tiffany Barnes, North Carolina State University
Jason Black, Florida A&M University
Cheryl Seals, Auburn University

Data Fluency: Curricular Issues for All Majors
Suzanne Dietrich, Arizona State University
Don Goelman, Villanova University

Teaching Open Source (Software)
Karl Wurst, Worcester State University
Lori Postner, Nassau Community College
Stoney Jackson, Western New England University

Including HCI and User Experience (UX) Methodologies in Computing Curricula
Debra Davis, Florida International University
Janet Davis, Grinnell College
Dave Berque, DePauw University
Matt Jadud, Berea College
Paul Resnick, University of Michigan

Ensemble: The Sharing Community
Lillian Cassel, Villanova University

Survey Courses and AP CS Principles
  Chris Mayfield, James Madison University
  Dennis Brylow, Marquette University

Incorporating Mobile Computing into the CS Curriculum
  Josh Dehlinger, Towson University
  Siddharth Kaza, Towson University
  Shiva Azadegan, Towson University

NSF/IEEE-TCPP Curriculum Initiative on Parallel and Distributed Computing – Core Topics for Undergraduates
  Sushil Prasad, Georgia State University
  Almadena Chtcchelkanova, National Science Foundation
  Anshul Gupta, IBM T.J. Watson Research Center
  Arnold Rosenberg, Northeastern University
  Alan Sussman, University of Maryland
  Charles Weems, University of Massachusetts

Integrating Active Learning Techniques into Systems Courses
  Michael Kirkpatrick, James Madison University
  Leo Porter, Skidmore College

Teaching Security Using Hands-On Exercises
  Richard Weiss, The Evergreen State College
  Michael Locasto, University of Calgary
  Jens Mache, Lewis & Clark College
  Elizabeth Hawthorne, Union County College
  Justin Cappos, NYU Polytechnic University

Community Engagement and Service Learning Opportunities in Computer Science
  Douglas Harms, DePauw University

Technology that Educators of Computing Hail (TECH): Come, share your favorites!
  Daniel D. Garcia, UC Berkeley
  Dan Armendariz, UC Berkeley

Using Science Fiction in CS Courses
  Rebecca Bates, Minnesota State University, Mankato
  Judy Goldsmith, University of Kentucky
  Valerie Summet, Emory University
Using and Sharing Programming Exercises to Improve Introductory Courses  
David Hovemeyer, York College  
Jaime Spacco, Knox College

Making Induction Meaningful, Recursively  
Peter-Michael Osera, University of Pennsylvania  
Brent Yorgey, University of Pennsylvania

Web Programming  
Martin Stepp, Stanford University  
Jessica Miller, Microsoft Research

Can 3D Virtual World Environments and Game-based Learning Effectively Teach Computer Science Concepts?  
Stephanie E. August, Loyola Marymount University Department of Electrical Engineering and Computer Science  
Jungwoo Ryoo, Business and Engineering, Pennsylvania State University - Altoona

FRIDAY 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, 10:00am – 12:00pm  
Poster Session I

Application of A Blended Active Learning Model in Teaching Computer Programming to Non-majors  
Chunming Gao, Michigan Technological University  
Noriyuki Iwane, Hiroshima City University

An Analysis of Difficulties Encountered by Novice Alice Programmers  
Kuan-Yu Lin, Taipei Municipal Jianguo High School  
Janet Mei-Chuen Lin, National Taiwan Normal University  
Hue-Ching Kao, Taipei Municipal Nan Gang High School
Exploring Cognitive Processes in Program Comprehension Based on Eye-movement Analysis
Ting-Yun Hou, National Taiwan Normal University
Yu-Tzu Lin, National Taiwan Normal University
Yu-Chih Lin, Yuanpei University

ACE: Automated Composition Evaluator
Stephanie Rogers, University of California, Berkeley
Steven Tang, University of California, Berkeley
Julia Oh, University of California, Berkeley

Guidelines for Group Work in CS1
Cecily Heiner, Southern Utah University

Techniques for Retaining Low Performing Students: High-Need Student Mentoring Program
Shearon Brown, North Carolina A&T State University
Xiaohong Yuan, North Carolina A&T State University

Intelligence and Security Informatics: Developing Curricular Modules in Context
Wingyan Chung, Stetson University
Albert Chan, Fayetteville State University
Daniel Plante, Stetson University
Ray Villalobos, Seminole State College
Joseph Woodside, Stetson University

Teaching Artificial Intelligence as a Lab Science: Basic and Informed Search
Stephanie E. August, Loyola Marymount University
Michael A. Fraser, Loyola Marymount University
Miguel A. Vazquez, Loyola Marymount University

Analysis of Interaction Logs for Online Tutorials
Daniel Breakiron, Virginia Tech
Eric Fouh, Virginia Tech
Sally Hamouda, Virginia Tech
Cliff Shaffer, Virginia Tech

ACM Associate-Degree IT Curricular Guidance
Elizabeth Hawthorne, Union County College
Cara Tang, Portland Community College
Jim Nichols, Estrella Mountain Community College
Cindy Tucker, Bluegrass Community and Technical College
Supporting Computational Algorithmic Thinking (SCAT): Development of a complex cognitive capability in African-American middle-school girls
   Jakita Thomas, Spelman College

Towards Engaging Big Data for CS1/2
   Nadeem Hamid, Berry College
   Steven Benzel, Georgia Highlands College

Integrating Computer Science and Mathematics in Middle School with Alice
   Susan Rodger, Duke University
   Daniel MacDonald, Duke University
   Elizabeth Onstwedder, Duke University
   Bella Onwumbiko, Duke University
   Edwin Ward, Duke University

Use of Problem Solving Approach to Teach Scratch Programming for Adult Novice Programmers
   Chiung-Fang Chiu, National Chi Nan University

Motivational Active Learning for Computer Science Education
   Johanna Pirker, Institute for Information Systems and Computer Media
   Christian Gütl, Institute for Information Systems and Computer Media

The Impact of Math Preparedness on Introductory Programming (CS1) Success
   Emmett Tomai, University of Texas - Pan American
   Christine Reilly, University of Texas - Pan American

But How Do We Measure Success?: A New Instrument for Evaluating Girls’ Progress in Middle and High School Computing Programs
   Catherine Ashcraft, National Center for Women & IT
   Wendy DuBow, National Center for Women & IT
   Zhen Wu, National Center for Women & IT

Developing a Game-Based Learning Curriculum for "Big Data" in Middle School
   Allison Martínez-Arocho, Meredith College
   Philip Buffum, North Carolina State University
   Kristy Boyer, North Carolina State University

Kodu, Alice and Computer Science Unplugged: A model of Effective Introducing Middle School Students to Computer Science and Computational Thinking
   Daniela Marghitu, Auburn University
   Lavaris Thomas, Auburn University
   Yasmeen Rawajfih, Auburn University
Jillian Hall, Auburn University  
Andrew Marshall, Auburn University

Who Drops CS1?  
Diane Horton, University of Toronto  
Michelle Craig, University of Toronto

Revitalizing the Computer Science Undergraduate Curriculum Inside and Outside of the Classroom Using Mobile Computing Platforms  
Josh Dehlinger, Towson University  
Siddharth Kaza, Towson University  
Shiva Azadegan, Towson University

A first year common course on computational problem solving and programmin  
Bruce Char, Drexel University  
Thomas Hewett, Drexel University

Altruism among Programmers: the availability and effectiveness of on-line, spontaneous peer mentoring in competitive problem solving.  
David Sturgill, North Carolina State University

Observations of First Learners with Different Capabilities  
Amber Wagner, University of Alabama  
Jeff Gray, University of Alabama

Come Code with Codester: An Educational App that Teaches Computer Science  
Gili Rusak, Siena College

Implementing a Living Lab Approach to Foster Innovation in an Advanced Software Engineering Course  
Jean French, Coastal Carolina University

MyCS: Building a Middle-years CS Curriculum  
Thomas Ashmore, Harvey Mudd College  
Sorathan Chaturapruek, Harvey Mudd College  
Zachary Dodds, Harvey Mudd College  
Corinne Druhan, Harvey Mudd College  
Bridgette Eichelberger, Harvey Mudd College  
Michael Erlinger, Harvey Mudd College  
Elizabeth Schofield, Harvey Mudd College

OCTAL: Online Course Tool for Adaptive Learning  
Dan Armendariz, University of California, Berkeley
Zack MacHardy, University of California, Berkeley
Daniel Garcia, University of California, Berkeley

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

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**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

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**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

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

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**Panel: CS Professional Development MOOCs**

    Erin Mindell, Google
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

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**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

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**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
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, 3:00pm – 5:00pm
Poster Session II

New Hands-on Labs on Browser Security
   Wenliang (Kevin) Du, Syracuse University
   Li Yang, University of Tennessee at Chattanooga
   Joseph Kizza, University of Tennessee at Chattanooga
   Xiaohong Yuan, North Carolina A&T State University

An Integrated Approach to Teaching of Abstract Query Languages and their Implementations
   Rajshekhar Sunderraman, Computer Science Department, Georgia State University

The Rising Renaissance Engineer Spectrum Awards
   Martha Kosa, Tennessee Technological University
   Ambareen Siraj, Tennessee Technological University

Developing and Using an in-house Plugin for Easy Social Network Programming
   Anna Koufakou, Florida Gulf Coast University
   Dahai Guo, Florida Gulf Coast University

Utilizing Gamification with Social Network to aid students in programming languages lessons in Higher Education IT Courses
   Marcell Mesquita, Centro Universitário do Pará
   Armando Toda, Universidade Estadual de Londrina
   Jacques Brancher, Universidade Estadual de Londrina
   Ricardo Carmo, Centro Universitário do Pará

A Comparison of Two Approaches for Hint Generation in Programming Tutors
   Andrew Hicks, NCSU
   Barry Peddycord III, NCSU
   Irena Rindos, NCSU
   Christopher Simmons, NCSU

Collaborative Programming Exercises in Virtual Worlds
   Johanna Pirker, Institute for Information Systems and Computer Media
   Christian Gütl, Institute for Information Systems and Computer Media
   Frank Kappe, Institute for Information Systems and Computer Media

Impact of Programming Language on Success in High School Programming Contests
   Stoney Jackson, Western New England University
   Heidi Ellis, Western New England University
   Robert Crouse, Western New England University
Mission Critical: Building Community to Engage Young Women in Computer Science
   Amanda Ochsner, University of Wisconsin-Madison
   Rane Johnson-Stempson, Microsoft Research
   Matthew Berland, University of Wisconsin-Madison

Interactive E-Learning Modules for Teaching Secure Coding: A Pilot Study
   Sagar Raina, Towson University
   Blair Taylor, Towson University
   Siddharth Kaza, Towson University

A Comparison of Two Hands-On Laboratory Experiences in Computers, Networks and Cyber Security for 10th-12th Graders
   Lisa Marvel, US Army Research Laboratory

Use of Mobile Application to Improve Active Learning and Student Participation in the Computer Science Classroom
   Debzani Deb, Winston Salem State University
   Muztaba Fuad, Winston Salem State University

Scare and Prepare: Increasing Awareness, Safety, and Passion for Cyber-Security
   Prem Uppuluri, Radford University
   Jeff Pittges, Radford University
   Joseph Chase, Radford University

An Extensible Scene Graph Library for Teaching Computer Graphics along the Programmable Pipeline
   Volker Ahlers, University of Applied Sciences and Arts Hannover

Teaching Mobile App Software Development is a Challenge!
   Roy Pargas, Clemson University
   Punit Kulkarni, Clemson University
   Gregory Edison, Clemson University
   Barbara Speziale, Clemson University

The Relationship between Task Difficulty and Emotion in Online Computer Programming Tutoring
   Joseph Wiggins, North Carolina State University
   Joseph Grafsgaard, North Carolina State University
   Kristy Boyer, North Carolina State University
   Eric Wiebe, North Carolina State University
   James Lester, North Carolina State University

Looking Glass: A C++ Library for Testing Student Programs through Reflection
Scott Turner, University of North Carolina at Pembroke

Parallel programming paradigms illustrated
  Michael Graf, Knox College
  Deyu Han, Knox College
  David Bunde, Knox College
  Jens Mache, Lewis & Clark College

RIT's New Minor in Free and Open Source Software and Free Culture
  Stephen Jacobs, RIT
  Amit Ray, RIT
  Jon Schull, RIT

Making Use of the Cognitive Apprenticeship Framework in an Undergraduate Robotics Course
  D. Brian Larkins, Coastal Carolina University

Copper Country Programmers: A Novel Curriculum for Beginning Programmers in Middle and High School
  Leo C. Ureel II, Michigan Technological University
  John Earnest, Michigan Technological University
  Charles Wallace, Michigan Technological University

Studio K: A Game Development Environment Designed for Gains in Computational Thinking
  Gabriella Anton, University of Wisconsin-Madison
  Matthew Berland, University of Wisconsin-Madison

PVA (Privacy through Visual Anonymity) Lab for Enhancing CS Education and Outreach
  Ankur Chattopadhyay, Adams State University
  Thomas Nehring, Adams State University

Adventures in Hackademia: Leveraging Humanitarian Free/Open Source Software Development in the Classroom
  Remy DeCausemaker, RIT Lab for Technological Literacy
  Stephen Jacobs, RIT Center for Media, Arts, Games, Interaction, and Creativity (MAGIC)

Data-Driven Broadened Participation
  Michele Roberts, IUPUI

Introducing CodeWorkout: An Adaptive and Social Learning Environment
  Kevin Buffardi, Virginia Tech
  Stephen H. Edwards, Virginia Tech
A First-Year Experience Report on a A Model for Statewide Deployment of CS Principles Courses

Jeff Gray, University of Alabama
Carol Crawford, A+ College Ready
Kathleen Haynie, Haynie Evaluation and Research
Deepa Muralidhar, North Gwinnett High School

Remote Pair Programming (RPP) in Massively Open Online Courses (MOOCs)

Jonathan McKinsey, University of California at Berkeley
Samuel Joseph, Hawaii Pacific University
Daniel Garcia, University of California at Berkeley

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
Kylie Clark, University of Victoria
Yvonne Coady, University of Victoria
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
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
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

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 Teaching 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 Ilkin, 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

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**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

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**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 Parallel 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