WEDNESDAY 8:30 AM - 5:00 PM
Pre-Symposium Events (room: TBA in Convention Center)

WEDNESDAY 7:00 PM - 10:00 PM
Workshops

Workshop #1: Teaching Computing Foundations to Non-Majors (room: 2503A)
Catherine Bareiss, Olivet Nazarene University
Larry Vail, Olivet Nazarene University

Workshop #2: Teaching Parallel & Distributed Computing with MPI (room: 2502A)
Joel Adams, Calvin College
Richard Brown, St Olaf College
Elizabeth Shoop, Macalester College

Workshop #3: Teaching Computer Science Soft Skills (room: 2502B)
Orit Hazzan , Technion- Israel Institute of Technology
Gadi Har-Shai, Technion- Israel Institute of Technology

Workshop #4: SEED Labs: Using Hands-on Lab Exercises for Computer SEcurity EDucation (room: 2504A)
Wenliang Du, Syracuse University

Workshop #5: Teaching Introductory Computer Science For A Diverse Student Body: Girls Who Code Style (room: 2505A)
Jeff Stern, University of Michigan
Ashley Gavin, Girls Who Code
Kari Bancroft, Girls Who Code

Workshop #6: Making Music with Computers: Creative Programming in Python (room: 2503B)
Bill Manaris, College of Charleston

Workshop #7: Intellectual Property Law Basics for Computer Science Instructors (room: 2505B)
David G. Kay, University of California, Irvine

THURSDAY 8:30 AM - 10:00 AM
Plenary Session - speaker to be announced

THURSDAY 10:00 AM - 10:45 AM
Break & Exhibits

THURSDAY 10:45 AM - 12:00 PM

Papers: CS Education Research (room: 2502A)	Thu 10:45 AM - 12:00 PM

10:45 AM   Student Response to Teaching of Memory Cues and Resumption Strategies in Computer Science Classes
Noah John, Colorado State University
Jaime Ruiz, Colorado State University

11:10 AM   Closing The Cyberlearning Loop: Enabling Teachers To Formatively Assess Student Programming Projects
Ashok Basawapatna, AgentSheets Inc.
Alexander Repenning, AgentSheets Inc.
Kyu Han Koh, University of Colorado Boulder

11:35 AM   Analyzing Student Work Patterns Using Programming Exercise Data
Jaime Spacco, Knox College
Paul Denny, University of Auckland
Brad Richards, University of Puget Sound
David Babcock, York College
David Hovemeyer, York College
James Moscola, York College
Robert Duvall, Duke University

Papers: Curriculum (room: 2503A)	Thu 10:45 AM - 12:00 PM

10:45 AM   Teaching Computing as Science in a Research Experience
Jerod Weinman, Grinnell College
David Jensen, University of Massachusetts Amherst
David Lopatto, Grinnell College

11:10 AM   Backward Design: An Integrated Approach to a Systems Curriculum
Michael Kirkpatrick, James Madison University
Mohamed Aboutabl, James Madison University
David Bernstein, James Madison University
Sharon Simmons, James Madison University

11:35 AM   A Module-based Approach to Adopting the 2013 ACM Curricular
Recommendations on Parallel Computing
Martin Burtscher, Texas State University
Wuxu Peng, Texas State University
Apan Qasem, Texas State University
Hongchi Shi, Texas State University
Dan Tamir, Texas State University
Heather Thiry, University of Colorado at Boulder

Papers: CS1/CS2: Focus on CS1 (room: 3501C)	Thu 10:45 AM - 12:00 PM

10:45 AM   Creating a Computer Simulator as a CS1 Student Project
Kian Pokorny, McKendree University

11:10 AM   Program Decomposition and Complexity in CS1
Aaron Keen, California Polytechnic State University
Kurt Mammen, California Polytechnic State University

11:35 AM   Supporting Creativity and User Interaction in CS 1 Homework Assignments
Tammy VanDeGrift, University of Portland

Papers: Beyond CS2: Miscellaneous Topics (room: 3501D)	Thu 10:45 AM - 12:00 PM

10:45 AM   Embedding Secure Coding Instruction into the IDE: A Field Study in an Advanced
CS Course
Michael Whitney, UNC Charlotte
Heather Lipford-Richter, UNC Charlotte
Bill Chu, UNC Charlotte

11:10 AM   Augmenting Undergraduate Computer Science Education with Programmable
Smartwatches
Andrey Esakia, Virginia Tech
Shuo Niu, Virginia Tech
Scott McCrickard , Virginia Tech

11:35 AM   Simulating IBM Watson in the Classroom
Wlodek Zadrozny, UNC Charlotte
Sean Gallagher, UNC Charlotte
Walid Shalaby, UNC Charlotte
Adarsh Manjunath, UNC Charlotte

Special Session (room: 3501H)	Thu 10:45 AM - 12:00 PM

Tutorial: Concurrency with Alice 3 and Java
  Wanda Dann, Carnegie Mellon University
  Cosgrove Dennis, Carnegie Mellon University
  Slater Donald, Carnegie Mellon University

Panel (room: 3501G)	Thu 10:45 AM - 12:00 PM

Booming Enrollments - Good Times?
  Tracy Camp, Colorado School of Mines
  Jim Kurose, University of Massachusetts
  Ellen Walker, Hiram College
  Lecia Barker, University of Texas at Austin

Special Session (room: 2505A)	Thu 10:45 AM - 12:00 PM

Integrating Live Projects Into Computing Curriculum
  Joseph Chase, Radford University
  Prem Uppuluri, Radford University
  Tracy Lewis, Radford University
  Ian Barland, Radford University
  Jeff Pittges, Radford University

Supporter Session (room: TBA)	Thu 10:45 AM - 12:00 PM

TBA

Supporter Session (room: TBA)	Thu 10:45 AM - 12:00 PM

TBA

THURSDAY 12:00 PM - 1:45 PM
LUNCH: FirstTimer's or on your own

THURSDAY 1:45 PM - 3:00 PM

Papers: Automated Assessment (room: 2503A)	Thu 1:45 PM - 3:00 PM

1:45 PM   A Simple Framework for Automated Assessment of Webpage Assignments in an Introductory Web Programming Class
Antonio Siochi, Christopher Newport University
William Hardy, Christopher Newport University

2:10 PM   The Role of Automation in Undergraduate Computer Science Education
Chris Wilcox, Colorado State University

2:35 PM   Mechanical TA: Partially Automated High-Stakes Peer Grading
James Wright, University of British Columbia
Chris Thornton, Google
Kevin Leyton-Brown, University of British Columbia

Papers: Gender & Diversity (room: 2502A)	Thu 1:45 PM - 3:00 PM

1:45 PM   Are Females Disinclined to Tinker in Computer Science?
Samantha Krieger, Department of Computer Science, University of British Columbia
Meghan Allen, Department of Computer Science, University of British Columbia
Catherine Rawn, Department of Psychology, University of British Columbia

2:10 PM   The Emerging Role of Self-Perception in Student Intentions
Jennifer Dempsey, Dept. of Computer Science, University of Arizona
Richard Snodgrass, Dept. of Computer Science, University of Arizona
Isabel Kishi, Dept. of Computer Science, University of Arizona
Allison Titcomb, Biosphere II, University of Arizona

2:35 PM   Diversifying Perceptions, Participation, and Projects in a College Hackathon to Increase Female Participation in Computing
Gabriela Richard, University of Pennsylvania
Yasmin Kafai, University of Pennsylvania
Barrie Adleberg, University of Pennsylvania
Orkan Telhan, University of Pennsylvania

Papers: Non-majors/Interdisciplinary (room: 3501E)	Thu 1:45 PM - 3:00 PM

1:45 PM   Computer Scientists at the Biology Lab Bench
Andrea Tartaro, Furman University
Renee J. Chosed, Furman University

2:10 PM   Data Journalism: Lessons Learned While Designing an Interdisciplinary Service Course
Christopher Plaue, University of Georgia
Lindsey Cook, U.S. News & World Report

2:35 PM   Introducing Computing Concepts to Non-Majors: A Case Study in Gothic Novels
Heather Bort, Marquette University
Mimi Czarnik, Alverno College
Dennis Brylow , Marquette University

Papers: CS1/CS2: Themed Approaches (room: 3501C)	Thu 1:45 PM - 3:00 PM

1:45 PM   Statistics-infused Introduction to Computer Science
Olaf Hall-Holt, St. Olaf College
Kevin Sanft, St. Olaf College

2:10 PM   Building Worlds: Bridging Imperative-First and Object-Oriented Programming in CS1-CS2
Zoë Wood, California Polytechnic State University
Aaron Keen, California Polytechnic State University

2:35 PM   A Data Programming CS1 Course
Ruth Anderson, University of Washington
Michael Ernst, University of Washington
Robert Ordonez, Southern Adventist University
Paul Pham, The Evergreen State College
Ben Tribelhorn, Seattle University

Papers: Beyond CS: Programming Languages/Compilers (room: 3501D)	Thu 1:45 PM - 3:00 PM

1:45 PM   A descent into the maelstrom: Teaching legacy programming and re-engineering
Michael Wirth, School of Computer Science, University of Guelph

2:10 PM   A Framework for Teaching Programming Languages
Kent Lee, Luther College

2:35 PM   The Interpreter In An Undergraduate Compilers Course
John Lasseter, Hobart & William Smith Colleges

Panel (room: 3501G)	Thu 1:45 PM - 3:00 PM

Panel on Flipped Classrooms
> *Jesse Heines, University of Massachusetts Lowell*
> *Jeffrey Popyack, Drexel University*
> *Briana Morrison, Southern Polytechnic State University*
> *Kate Lockwood, University of St. Thomas*
> *Doug Baldwin, SUNY Geneseo*

Special Session (room: 3501H)	Thu 1:45 PM - 3:00 PM

Computer Science Principles Curricula: On-the-ground, adoptable, adaptable, approaches to
> teaching
> *Owen Astrachan, Duke University*
> *Daniel Garcia, University of California Berkeley*
> *Bennett Brown, Project Lead The Way*
> *Jeff Gray, University of Alabama*
> *Ralph Morelli, Trinity College*
> *Marie desJardins, University of Maryland, Baltimore County*
> *Calvin Lin, University of Texas at Austin*
> *Nigamanth Sridhar, Cleveland State University*
> *Bradley Beth, University of Texas at Austin*

Supporter Session (room: TBA)	Thu 1:45 PM - 3:00 PM

Google

Supporter Session (room: TBA)	Thu 1:45 PM - 3:00 PM

TBA

THURSDAY 3:00 PM - 3:45 PM
Break & Exhibits

THURSDAY 3:45 PM - 5:00 PM

Papers: Block Languages (room: 3501E)   Thu 3:45 PM - 5:00 PM

3:45 PM	DBSnap: Learning Database Queries by Snapping Blocks *Yasin Silva, Arizona State University* *Jaime Chon, Arizona State University*
4:10 PM	Language Migration in non-CS Introductory Programming through Mutual Language Translation Environment *Yoshiaki Matsuzawa, Shizuoka University* *Takashi Ohata, Shizuoka University* *Manabu Sugiura, Keio University* *Sanshiro Sakai, Shizuoka University*
4:35 PM	Scratch: A Way to Logo and Python *Mark Dorling, Computing at School, BCS Chartered Institute for IT* *David White, Computing at School, BCS Chartered Institute for IT*

Papers: Gender & Diversity (room: 2502A)   Thu 3:45 PM - 5:00 PM

3:45 PM	The Grace Hopper Regional Consortium *Gloria Townsend, DePauw University* *Kay Sloan, Rockman et al*
4:10 PM	Improving Undergraduate Student Performance in Computer Science at Historically Black Colleges and Universities (HBCUs) through Industry Partnerships *Alicia Washington, Howard University*
4:35 PM	A Comparative Study of the Acceptability of Signs for the Brazilian Sign Language Created in Person and Remotely *Francisco Oliveira, State University of Ceará* *Neiva Cardins, State University of Ceará* *Adriano Freitas, Federal Institute of Ceará* *Anibal Oliveira, State University of Ceará*

Papers: Student Engagement: Flipped Classroom (room: 3501C)	Thu 3:45 PM - 5:00 PM

3:45 PM	Beyond the Flipped Classroom: Learning by Doing Through Challenges and Hack-a-thons *Michael Skirpan, University of Colorado - Boulder* *Tom Yeh, University of Colorado - Boulder*
4:10 PM	Flipped Classroom Strategies for CS Education *Mary Lou Maher, UNC Charlotte* *Heather Lipford, UNC Charlotte* *Celine Latulipe, UNC Charlotte* *Audrey Rorrer, UNC Charlotte*
4:35 PM	The Effectiveness of Video Quizzes in a Flipped Class *Lisa Lacher, University of Houston - Clear Lake* *Mark Lewis, Trinity University*

Papers: CS1/CS2: Persistence and Attitudes (room: 3501D)	Thu 3:45 PM - 5:00 PM

3:45 PM	Reconsidering the Impact of CS1 on Novice Attitudes *Amber Settle, DePaul University* *John Lalor, DePaul University* *Theresa Steinbach, DePaul University*
4:10 PM	Drop, Fail, Pass, Continue: Persistence in CS1 and Beyond in Traditional and Inverted Delivery *Diane Horton, University of Toronto* *Michelle Craig, University of Toronto*
4:35 PM	Incremental Separation of Surmountable and Insurmountable Programming Difficulties *Jason Carter, Cisco System Inc* *Prasun Dewan, The University of North Carolina at Chapel Hill*

Papers: Beyond CS2: Algorithms (room: 2503A)	Thu 3:45 PM - 5:00 PM

3:45 PM	Illustrating the Interaction of Algorithms and Data Structures Using the Matching Problem *Joan Lucas, The College at Brockport, State Univ. of New York*
4:10 PM	Fibonacci in The Curriculum: Not Just a Bad Recurrence *Saad Mneimneh, Hunter College CUNY*
4:35 PM	Randomized Reduction *Brian Dean, Clemson University* *Raghuveer Mohan, Clemson University* *Chad Waters, Clemson University*

Special Session (room: 3501G)	Thu 3:45 PM - 5:00 PM

Curricular Assessment: Tips and Techniques
>*Henry Walker, Grinnell College*
>*Sue Fitzgerald, Metropolitan State University, MN*
>*John Dooley, Knox College*

Panel (room: 3501H)	Thu 3:45 PM - 5:00 PM

Best Practices for IRB Approval: Four Perspectives
>*Michael Kirkpatrick, James Madison University*
>*Janice Cuny, National Science Foundation*
>*Mark Guzdial, Georgia Institute of Technology*
>*Amanda Holland-Minkley, Washington & Jefferson College*
>*Cliff Shaffer, Virginia Polytechnic Institute and State University*

Panel (room: 2505A)	Thu 3:45 PM - 5:00 PM

Supporting the Computer Science Learning Process
>*Amy Briggs, Middlebury College*
>*David Bau, Google*
>*Caroline Meeks, Prospect Hill Academy*
>*Pat Yongpradit, Code.org*

Supporter Session (room: TBA)	Thu 3:45 PM - 5:00 PM

ABET

BOFS (room: TBA in Marriott Hotel)	Thu 5:30 PM - 6:20 PM

BOFS (room: TBA in Marriott Hotel)	Thu 6:30 PM - 7:30 PM

THURSDAY 7:30 PM - 8:30 PM
Reception (room: TBA in Marriott Hotel)

FRIDAY 8:30 AM - 10:00 AM
Plenary Session - speaker to be announced

FRIDAY 10:00 AM - 10:45 AM
Break & Exhibits

FRIDAY 10:45 AM - 12:00 PM

Papers: Student Engagement: Self Explanation (room: 2502A)   Fri 10:45 AM - 12:00 PM

10:45 AM   Expressions of Abstraction: Self-Explanation in Code Production
Leigh Ann DeLyser, CSNYC

11:10 AM   Generating Practice Questions as a Preparation Strategy for Introductory Programming Exams
Paul Denny, The University of Auckland

11:35 AM   Benefits of Self-explanation in Introductory Programming
Arto Vihavainen, University of Helsinki
Craig S. Miller, DePaul University
Amber Settle, DePaul University

Papers: Focus on K-12: Professional Development (room: 3501C)   Fri 10:45 AM - 12:00 PM

10:45 AM   Growing a K-12 Community of Practice
Susan H. Rodger, Duke University
Stephen Cooper, Stanford University
Wanda Dann, Carnegie Mellon University
Madeleine Schep, Columbia College
RoxAnn Stalvey, College of Charleston

11:10 AM   Computing on the Silicon Prairie: The State of CS in Nebraska Public Schools
Brian Dorn, University of Nebraska at Omaha
Derek Babb, Omaha North High School
Dawn Nizzi, Westside High School Career Center
Cory Epler, Nebraska Department of Education

11:35 AM   Supporting CS10K: A New Computer Science Methods Course for Mathematics Education Students
Robin Flatland, Siena College Computer Science
Darren Lim, Siena College Computer Science
James Matthews, Siena College Computer Science
Scott Vandenberg, Siena College Computer Science

Papers: Soft Skills: Teamwork & Communication (room: 2503A)	Fri 10:45 AM - 12:00 PM

10:45 AM	Using a Message Board as a Teaching Tool in an Introductory Cyber-Security Course
	Christopher Brown, United States Naval Academy
	Zachary Dannelly, United States Naval Academy
	Raymond Greenlaw, United States Naval Academy
	Andrew Phillips, United States Naval Academy
	Sarah Standard, United States Naval Academy
11:10 AM	Further Evaluations of 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
11:35 AM	Supporting Programming Assignments with Activity Streams: An Empirical Study
	Christopher Hundhausen, Washington State University
	Adam Carter, Washington State University
	Olusola Adesope, Washington State University

Papers: Beyond CS2: Cloud Computing (room: 3501D)	Fri 10:45 AM - 12:00 PM

10:45 AM	Hands-On Network Programming Projects in the Cloud
	Weiying Zhu, Metropolitan State University of Denver
11:10 AM	Teaching Cybersecurity Analysis Skills in the Cloud
	Richard Weiss, The Evergreen State College
	Stefan Boesen, Dartmouth College
	James Sullivan, University of Calgary
	Michael Locasto, University of Calgary
	Jens Mache, Lewis & Clark College
	Erik Nilsen, Lewis & Clark College
11:35 AM	A Cloud Computing Course: From Systems To Services
	M. Suhail Rehman, Carnegie Mellon University
	Jason Boles, Carnegie Mellon University in Qatar
	Mohammad Hammoud, Carnegie Mellon University in Qatar
	Majd F. Sakr, Carnegie Mellon University

Special Session (room: 3501H)	Fri 10:45 AM - 12:00 PM

Budget Beowulfs: A Showcase of Inexpensive Clusters for Teaching PDC
> *Joel Adams, Calvin College*
> *Suzanne Matthews, U.S. Military Academy*
> *Charles Peck, Earlham College*
> *Elizabeth Shoop, Macalester College*
> *David Toth, Centre College*

Panel (room: 3501G)	Fri 10:45 AM - 12:00 PM

Using App Inventor in Introductory CS Courses
> *Meimei Gao, Mercer County Community College*
> *Julie Johnson, Vanderbilt University*
> *Dale Reed, University of Illinois at Chicago*
> *Cate Sheller, Kirkwood Community College*
> *Franklyn Turbak, Wellesley College*

Panel (room: 2505A)	Fri 10:45 AM - 12:00 PM

Research, Resources and Communities: Informal Ed as a Partner in Computer Science Education
> *Cameron L. Fadjo, Google, Inc.*
> *Betsy DiSalvo, Georgia Institute of Technology*
> *Irene Lee, Santa Fe Institute*
> *Karen Peterson, National Girls Collaborative Project*

Supporter Session (room: TBA)	Fri 10:45 AM - 12:00 PM

Oracle

Supporter Session (room: TBA)	Fri 10:45 AM - 12:00 PM

Teradata

FRIDAY 12:00 PM - 1:45 PM
LUNCH: on your own

FRIDAY 1:45 PM - 3:00 PM

Papers: CS Education Research (room: 2502A)   Fri 1:45 PM - 3:00 PM

1:45 PM	**Recursion vs. Iteration: An Empirical Study of Comprehension Revisited**
	Renée McCauley, College of Charleston
	Brian Hanks, BFH Educational Consulting
	Sue Fitzgerald, Metropolitan State University
	Laurie Murphy, Pacific Lutheran University
2:10 PM	**Tracking Student Learning from Class to Exam using Isomorphic Questions**
	Daniel Zingaro, University of Toronto Mississauga
	Leo Porter, University of California, San Diego
2:35 PM	**The Effectiveness of Visualization for Learning Expression Evaluation**
	Amruth Kumar, Ramapo College of New Jersey

Papers: Focus on K-12: Professional Development (room: 3501C)   Fri 1:45 PM - 3:00 PM

1:45 PM	**Analyzing Year One of a CS Principles PD Project**
	Ralph Morelli, Trinity College
	Chinma Uche, Connecticut Chapter, Computer Science Teachers Association
	Pauline Lake, Trinity College
	Lawrence Baldwin, Baldwin Research Consultancy
2:10 PM	**Field Experiences in Teaching Computer Science: Course Organization and Reflections**
	Lori Pollock, University of Delaware
	Chrystalla Mouza, University of Delaware
	James Atlas, University of Delaware
	Terry Harvey, University of Delaware
2:35 PM	**A Mid-Project Report on a Statewide Professional Development Model for CS Principles**
	Jeff Gray, University of Alabama
	Kathy Haynie, Haynie Research and Evaluation
	Sheryl Packman, Gator Analytics
	Mary Boehm, A+ College Ready
	Carol Crawford, A+ College Ready
	Deepa Muralidhar, Atlanta Girls School

Papers: Student Engagement: Active Learning (room: 3501D)	Fri 1:45 PM - 3:00 PM

1:45 PM   Integrating Role-Playing Games into Computer Science Courses as a Pedagogical Tool
David Toth, Centre College
Mary Kayler, University of Mary Washington

2:10 PM   Structuring Flipped Classes with Lightweight Teams and Gamification
Celine Latulipe, University of North Carolina at Charlotte
Bruce Long, University of North Carolina at Charlotte
Carlos Seminario, University of North Carolina at Charlotte

2:35 PM   Teaching Internet of Things by Blending Problem- and Project-Based Learning to assist Greenhouse Maintenance
Hanna Mäenpää, University of Helsinki
Samu Varjonen, University of Helsinki
Arto Vihavainen, University of Helsinki

Papers: Testing: Improving Quality of Student Testing (room: 2503A)	Fri 1:45 PM - 3:00 PM

1:45 PM   Can the Security Mindset Make Students Better Testers?
Sara Hooshangi, The George Washington University
Richard Weiss, The Evergreen State College
Justin Cappos, NYU

2:10 PM   An Empirical Study of Iterative Improvement in Programming Assignments
Raymond Pettit, Abilene Christian University
John Homer, Abilene Christian University
Susan Mengel, Texas Tech University
Roger Gee, Abilene Christian University
Adam Starbuck, Abilene Christian University

2:35 PM   Reconsidering Automated Feedback: A Test-Driven Approach
Kevin Buffardi, California State University, Chico
Stephen H. Edwards, Virginia Tech

Papers: Beyond CS2: OS/Virtualization (room: 3501E)	Fri 1:45 PM - 3:00 PM

1:45 PM	MC-Live: A Portable Computing Environment for Computer Science Students
	Lee Wittenberg, Maryville College

2:10 PM	Teaching Virtualization by Building a Hypervisor
	Abhinand Palicherla, Tintri, Inc.
	Tao Zhang, Stony Brook University
	Donald Porter, Stony Brook University

2:35 PM	MiniOS: an instructional platform for teaching operating systems projects
	Rafael Roman Otero, University of Northern British Columbia
	Alex Aravind, University of Northern British Columbia

Special Session (room: 3501G)	Fri 1:45 PM - 3:00 PM

Achieving a shared goal with AP Computer Science A and AP Computer Science Principles

Lien Diaz, College Board
Paul Tymann, Rochester Institute of Technology
Fran Trees, Rutgers University
Lester Wainwright, Charlottesville High School
Sandy Czajka, Riverside Brookfield High School
Richard Kick, Newbury Park High School
Andrew Kuemmel, Madison West High School

Special Session (room: 3501H)	Fri 1:45 PM - 3:00 PM

Towards Grand Challenges in Computing Education Across Disciplines: Setting an Agenda for
Research and Pedagogy

Lecia Barker, University of Texas at Austin
Stephen Cooper, Stanford University
Andrew McGettrick, University of Strathclyde
Jason Thatcher, Clemson University
Heikki Topi, Bentley University

Supporter Session (room: TBA)	Fri 1:45 PM - 3:00 PM

Google

Supporter Session (room: TBA)	Fri 1:45 PM - 3:00 PM

TBA

FRIDAY 3:00 PM - 3:45 PM
Break & Exhibits

FRIDAY 3:45 PM - 5:00 PM

Papers: CS Education Research (room: 2502A)   Fri 3:45 PM - 5:00 PM

3:45 PM   Correlation of Topic Model and Student Grades Using Comment Data Mining
            Shaymaa Sorour, Kyushu university
            Tsunenori Mine, Kyushu university
            Kazumasa Goda, Kyushu Institute of Information Science

4:10 PM   Bats, Balls, and Lures: Cognitive Style in CS Education
            Barry Wittman, Elizabethtown College
            Jean Pretz, Elizabethtown College

4:35 PM   SOLO Taxonomy for Assessing Novices' Algorithmic Design
            David Ginat, Tel-Aviv University
            Etty Menashe, Tel-Aviv University

Papers: Focus on K-12: Engaging Students (room: 3501C)   Fri 3:45 PM - 5:00 PM

3:45 PM   What Does It Take to Do Computer Programming? Surveying the K-12 Students'
            Conceptions
            Antti-Jussi Lakanen, Mathematical Information Technology, University of Jyväskylä
            Ville Isomöttönen, Mathematical Information Technology, University of Jyväskylä

4:10 PM   Engaging High School Students in Modeling and Simulation through Educational
            Media
            David Musicant, Carleton College
            S. Selcen Guzey, Purdue University

4:35 PM   An Analysis of User Engagement in Relation to Computing Workshop Activities
            Rachel Menzies, University of Dundee
            Michael Crabb, University of Dundee
            Daniel Herron, University of Dundee
            Karen Petrie, University of Dundee
            Craig Stewart, University of Dundee
            Mark Zarb, University of Dundee

Papers: Testing: Tools & Techniques (room: 3501E)	Fri 3:45 PM - 5:00 PM

3:45 PM   Unci: a C++-based Unit-testing Framework for Intro Students
Don Blaheta, Longwood University

4:10 PM   Bug Infestation! A Goal-Plan Analysis of CS2 Students' Recursive Binary Search Tree Solutions
Laurie Murphy, Pacific Lutheran University
Sue Fitzgerald, Metropolitan State University
Scott Grissom, Grand Valley State University
Renée McCauley, College of Charleston

4:35 PM   Ante Up: A Framework to Strengthen Student-Based Testing of Assignments
Michael Bradshaw, Centre College

Papers: Soft Skills: Teamwork (room: 2503A)	Fri 3:45 PM - 5:00 PM

3:45 PM   On the Evaluation of Student Team Software Development Projects
Anya Tafliovich, University of Toronto Scarborough
Andrew Petersen, University of Toronto Mississauga
Jennifer Campbell, University of Toronto

4:10 PM   An Experience Report at Teaching Group Based Agile Software Engineering Teams
Craig Anslow, University of Calgary
Frank Maurer, University of Calgary

4:35 PM   An Experience Report: Using Mobile Development To Teach Software Design
Jennifer Campbell, University of Toronto
Anya Tafliovich, University of Toronto Scarborough

Lightning Talks (room: 3501D)	Fri 3:45 PM - 5:00 PM

Lightning Talks

Special Session (room: 3501G)	Fri 3:45 PM - 5:00 PM

Perspectives on Adopting and Facilitating Guided Inquiry Learning
Helen Hu, Westminster College
Clifton Kussmaul, Muhlenberg College
Deepa Muralidhar, Atlanta Girls School
Kristine Nagel, Georgia Gwinnett College

Special Session (room: 2505A)	Fri 3:45 PM - 5:00 PM

Introduction to AccessCS10K and Accessible Tools for Teaching Programming
Andreas Stefik, University of Nevada, Las Vegas
Richard Ladner, University of Washington

Panel (room: 3501H)	Fri 3:45 PM - 5:00 PM

One-Day Activities for K-12 Face-to-Face Outreach
Daniel D. Garcia, UC Berkeley
Wei Ding, University of Massachusetts, Boston
Joseph Cohen, University of Massachusetts, Boston
Barbara Ericson, Georgia Institute of Technology
Jeff Gray, University of Alabama
Dale Reed, University of Illinois at Chicago

Supporter Session (room: TBA)	Fri 3:45 PM - 5:00 PM

GitHub

FRIDAY 7:00 PM - 10:00 PM
Workshops

Workshop #8: A Swift Introduction to Swift App Development (room: 2502A)
Michael Rogers, Northwest Missouri State University
Bill Siever, Western Illinois University

Workshop #9: Conducting educational research in the computer science classroom: Choosing the appropriate research design to address your research questions. (room: 3501H)
Aman Yadav, Michigan State University

Workshop #10: Pencil Code: Bridging the Gap between Visual and Text-based CS Education (room: 2502B)
David Bau, Google
Matthew Dawson, Google
Anthony Bau, Phillips Exeter Academy

Workshop #11: Teaching Cryptography and Access Control Hands-on (room: 3501E)
Steve Carr, Western Michigan University
Melissa Keranen, Michigan Technological University
Jean Mayo, Michigan Technological University

Workshop #12: Bridging the Divide: Developing Culturally-Responsive Curriculum for K-12 Computer Science Education (room: 2503B)
Alicia Washington, Howard University

Workshop #13: On Beyond Sudoku: Pencil Puzzles for Introductory Computer Science (room: 2504A)
    Zack Butler, Rochester Institute of Technology
    Ivona Bezakova, Rochester Institute of Technology

Workshop #14: How to Plan and Run Summer Computing Camps - Logistics (room: 2505B)
    Marguerite Doman, Winthrop University
    Barbara Ericson , Georgia Institute of Technology
    Kristine Nagel, Georgia Gwinnett College
    Nannette Napier, Georgia Gwinnett College
    Krishnendu Roy, Valdosta State University

Workshop #15: Small or Liberal Arts Colleges Adapting to CS2013: Making It Work (room: 3501C)
    Andrea Danyluk, Williams College
    Michael Jipping, Hope College
    Rhys Price Jones, Wellesley College
    David Reed, Creighton University
    Brad Richards, University of Puget Sound
    Richard Wicentowski, Swarthmore College

Workshop #16: Steal This Courseware: FOSS, Github, Flask, and OpenShift (room: 2503A)
    Stephen Jacobs, RIT Center for Media, Arts, Games, Interaction and Creativity (MAGIC)
    Remy DeCausemaker, RIT Center for Media, Arts, Games, Interaction and Creativity (MAGIC)

Workshop #17: The Internet, Creativity and Global Impact: Curriculum Modules for the new AP Computer Science Principles course (room: 3501D)
    Lien Diaz, College Board, Advanced Placement Program
    Richard Kick, Newbury Park High School
    Andrew Kuemmel, Madison West High School

Workshop #18: Games, Phones, and Programming in the Classroom (room: 3501G)
    Veronica Catete, NC State University
    Barry Peddycord III, NC State University
    Tiffany Barnes, NC State University

Workshop #19: Infusing Cooperative Learning into Early Computer Science Courses to Support Improved Engagement (room: 3501F)
    Jeff Gray, University of Alabama
    Fran Trees, Rutgers University
    Owen Astrachan, Duke University

SATURDAY 9:00 AM - 10:15 AM

Papers: Testing: Student Programming Errors (room: 2502A)	Sat 9:00 AM - 10:15 AM

9:00 AM   37 Million Compilations: Investigating Novice Programming Mistakes in Large-Scale Student Data
Amjad Altadmri, University of Kent
Neil C.C. Brown, University of Kent

9:25 AM   Looking Glass: A C++ Library for Testing Student Programs through Reflection
Scott Turner, UNC Pembroke

9:50 AM   Checked Coverage and Object Branch Coverage: New Alternatives for Assessing Student-Written Tests
Zalia Shams, Virginia Tech
Stephen Edwards, Virginia Tech

Papers: Focus on K-12: Elementary (room: 3501C)	Sat 9:00 AM - 10:15 AM

9:00 AM   Using SOLO to classify the programming responses of primary grade students
Linda Seiter, John Carroll University

9:25 AM   Floors and Flexibility: Designing a programming environment for 4th-6th grade classrooms
Charlotte Hill, UC Santa Barbara
Hilary Dwyer, UC Santa Barbara
Tim Martinez, UC Santa Barbara
Danielle Harlow, UC Santa Barbara
Diana Franklin, UC Santa Barbara

9:50 AM   Getting Started Teaching and Researching Computer Science in the Elementary Classroom
Diana Franklin, UC Santa Barbara
Charlotte Hill, UC Santa Barbara
Hilary Dwyer, UC Santa Barbara
Ashley Iveland, UC Santa Barbara
Alexandria Killian, UC Santa Barbara
Danielle Harlow, UC Santa Barbara

Papers: Non-majors/Interdisciplinary (room: 2503A)	Sat 9:00 AM - 10:15 AM

9:00 AM   Improving Non-CS Major Performance in CS1
Victor Norman, Calvin College
Joel Adams, Calvin College

9:25 AM   Can We "Flip" Non-Major Programming Courses Yet?
Douglas Baldwin, SUNY Geneseo

9:50 AM   Evaluating Pair-Programming for Non-Computer Science Major Students
Clem O'Donnell, University of Limerick
Michael English, University of Limerick
Abdulhussain Mahdi, University of Limerick
John Nelson, University of Limerick
Jim Buckley, University of Limerick

Papers: Focus on K-12: Outreach/Summer Camps (room: 3501D)	Sat 9:00 AM - 10:15 AM

9:00 AM   From 9 to 90: Engaging Learners of All Ages
Allison Sauppé, University of Wisconsin-Madison
Daniel Szafir, University of Wisconsin-Madison
Chien-Ming Huang, University of Wisconsin-Madison
Bilge Mutlu, University of Wisconsin-Madison

9:25 AM   A Socio-Cognitive Analysis of Summer Camp Outcomes and Experiences
Chulakorn Aritajati, The Pennsylvania State University, College of IST
Mary Beth Rosson, The Pennsylvania State University, College of IST
Joslenne Pena, The Pennsylvania State University, College of IST
Dana Cinque, The Pennsylvania State University, College of IST
Ana Segura, University of Houston

9:50 AM   Computational Bead Design: A Pilot Summer Camp in Computer Aided Design
and 3D Printing for Middle School Girls
Courtney Starrett, Winthrop University
Marguerite Doman, Winthrop University
Chlotia Garrison, Winthrop University
Merry Sleigh, Winthrop University

Special Session (room: 3501G)	Sat 9:00 AM - 10:15 AM

Big Data in Computer Science Education Research
> *Orit Hazzan , Technion- Israel Institute of Technology*
> *Clifford Shaffer, Virginia Tech*

Special Session (room: 2505A)	Sat 9:00 AM - 10:15 AM

Scaling High School Computer Science: Exploring Computer Science and Computer Science
> Principles
> *Owen Astrachan, Duke University*
> *Ralph Morelli, Trinity College*
> *Jeff Gray, University of Alabama*
> *Gail Chapman, UCLA*

Panel (room: 2505B)	Sat 9:00 AM - 10:15 AM

SPOCs: What, Why, and How
> *Janet Burge, Wesleyan University*
> *Armando Fox , UC Berkeley*
> *Dan Grossman, University of Washington*
> *Gerald Roth , Vanderbilt University*
> *Joe Warren, Rice University*

Panel (room: 3501H)	Sat 9:00 AM - 10:15 AM

Technology We Can't Live Without!
> *Daniel D. Garcia, UC Berkeley*
> *Eric Allatta, Academy for Software Engineering*
> *Manuel Pérez-Quiñones, Virginia Tech*
> *Jeff Solin, Lane Tech College Prep High School*

Supporter Session (room: TBA)	Sat 9:00 AM - 10:15 AM

TBA

SATURDAY 10:00 AM - 10:45 AM **Break & Exhibits**

SATURDAY 10:45 AM - 12:00 PM

Papers: Teaching Practices (room: 2502A)	Sat 10:45 AM - 12:00 PM

10:45 AM   Insights into Teaching and Learning: Reflections on MOOC Experiences
Janet Burge, Wesleyan University

11:10 AM   What Influences CS Faculty to Adopt Teaching Practices?
Lecia Barker, University of Texas at Austin
Gruning Jane, University of Texas at Austin
Christopher Lynnly Hovey, Northeastern University

11:35 AM   Personalized Attention @ Scale - Talk isn't Cheap, but it's effective
Dirk Grunwald, University of Colorado
Elizabeth Boese, University of Colorado
Rhonda Hoenigman, University of Colorado
Andy Sayler, University of Colorado
Judy Stafford, University of Colorado

Papers: Focus on K-12: Miscellaneous topics (room: 3501C)	Sat 10:45 AM - 12:00 PM

10:45 AM   Transferring Skills at Solving Word Problems from Computing to Algebra
Emmanuel Schanzer, Harvard Graduate School of Education
Kathi Fisler, WPI Computer Science
Shriram Krishnamurthi, Brown University Computer Science
Matthias Felleisen, Northeastern University College of Computer and Information Science

11:10 AM   A Practical Guide to Developing and Validating Computer Science Knowledge Assessments with Application to Middle School
Philip Buffum, North Carolina State University
Eleni Lobene, North Carolina State University
Megan Frankosky, North Carolina State University
Kristy Boyer, North Carolina State University
Eric Wiebe, North Carolina State University
James Lester, North Carolina State University

11:35 AM   Reactive Game Engine Programming for STEM Outreach
Alan Cleary, Montana State University
Lucas Vandenbergh, Western State Colorado University
John Peterson, Western State Colorado University

Papers: Computers & Society (room: 2503A)	Sat 10:45 AM - 12:00 PM

10:45 AM　　Building CS Research Capacity in sub-Saharan Africa by Implementing a Doctoral Training Program
Mikko Apiola, University of Eastern Finland
Jarkko Suhonen, University of Eastern Finland
Abbi Nangawe, College of Business Education
Erkki Sutinen, University of Eastern Finland

11:10 AM　　Engaging Non-Traditional Students in Computer Science through Socially-Inspired Learning and Sustained Mentoring
Jennifer Burg, Wake Forest University
Paul Pauca, Wake Forest University
William Turkett, Wake Forest University
Fulp Errin, Wake Forest University
Samuel Cho, Wake Forest University
Santago Peter, Wake Forest University
Daniel Canas, Wake Forest University
H. Donald Gage, Wake Forest University

11:35 AM　　How much impact can be made in a week? Designing Effective International Service Learning Projects for Computing
Grace Ngai, Hong Kong Polytechnic University
Stephen C.F. Chan, Hong Kong Polytechnic University

Papers: Beyond CS2: Networking/Security (room: 3501D)	Sat 10:45 AM - 12:00 PM

10:45 AM　　Lowering the Barrier to Systems-level Networking Projects
Joel Sommers, Colgate University

11:10 AM　　A Simple Laboratory Environment for Real-World Offensive Security Education
Maxim Timchenko, Boston University
David Starobinski, Boston University

11:35 AM　　An Educational Networking Framework for Full Layer Implementation and Testing
Keunhong Lee, KAIST
Joongi Kim, KAIST
Sue Moon, KAIST

Special Session (room: 3501G)	Sat 10:45 AM - 12:00 PM

The CS Concept Inventory Quiz Show
Nafeesa Dewji, University of British Columbia
Steven Wolfman, University of British Columbia

Panel (room: 2505A)	Sat 10:45 AM - 12:00 PM

Bringing Grades K-5 to the Mainstream of Computer Science Education
> *Katie Apone, Code.org*
> *Marina Bers, Tufts University*
> *Karen Brennan, Harvard University*
> *Diana Franklin, UC Santa Barbara*
> *Maya Isreal, University of Illinois at Urbana Champaign*
> *Pat Yongpradit, Code.org*

Special Session (room: 3501H)	Sat 10:45 AM - 12:00 PM

Nifty Assignments
> *Nick Parlante, Stanford University*
> *Julie Zelenski, Stanford University*

Supporter Session (room: TBA)	Sat 10:45 AM - 12:00 PM

TBA

SATURDAY 12:00 PM - 2:00 PM
Luncheon - speaker to be announced

SATURDAY 3:00 PM - 6:00 PM
Workshops

Workshop #20: Computer Science Principles with EarSketch (room: 3501E)
> *Jason Freeman, Georgia Institute of Technology*
> *Brian Magerko, Georgia Institute of Technology*

Workshop #21: Teaching Computing with Processing, the Bridge between High School and College
> (room: 3501F)
> *Aaron Cadle, Arlington ISD*
> *Ira Greenberg, Southern Methodist University*
> *Deepak Kumar, Bryn Mawr College*
> *Darby Thompson, Sidwell Friends School*
> *Ursula Wolz, RiverSound Solutions*
> *Dianna Xu, Bryn Mawr College*

Workshop #22: Supporting new Adopters to Peer Instruction in Computing (room: 2502A)
> *Daniel Zingaro, University of Toronto Mississauga*
> *Leo Porter, University of California, San Diego*
> *Quintin Cutts, University of Glasgow*
> *John Glick, University of San Diego*
> *Joe Hummel, University of Illinois at Chicago*
> *Cynthia Lee, Stanford University*
> *Jaime Spacco, Knox College*

Workshop #23: Reviewing NSF Proposals: Learn about Effective Proposal Writing via the Review
           Process (room: 2502B)
           Paul Tymann, National Science Foundation
           Michael Erlinger, National Science Foundation

Workshop #24: Creating Stimulating, Relevant, and Manageable Introductory Computer Science
           Projects that Utilize Real-Time, Large, Web-Based Datasets (room: 2503A)
           Eli Tilevich, Dept. of Computer Science, Virginia Tech
           Clifford Shaffer, Dept. of Computer Science, Virginia Tech
           Austin Cory Bart, Dept. of Computer Science, Virginia Tech

Workshop #25: Building Code Magnet Labs for Tablets and Other Devices (room: 2503B)
           Barry Kurtz, Appalachian State University
           Rahman Tashakkori, Appalachian State University
           Ahmad Esmaili, Stony Brook University

Workshop #26: Introducing Secure Coding in CS0, CS1, and CS2 (room: 2504A)
           Siddharth Kaza, Towson University
           Blair Taylor, Towson University
           Elizabeth Hawthorne, Towson University

Workshop #27: Puzzle-Based Learning: Introducing Creative Thinking and Problem Solving for
           Computer Science and Engineering (room: 2505B)
           Raja Sooriamurthi, Carnegie Mellon University
           Nickolas Falkner, University of Adelaide
           Ed Meyer, Baldwin Wallace University

Workshop #28: KELP CS and LaPlaya: A computational thinking curriculum and development
           environment for 4th - 6th grade (room: 3501C)
           Diana Franklin, UC Santa Barbara
           Charlotte Hill, UC Santa Barbara
           Hilary Dwyer, UC Santa Barbara

Workshop #29: Teaching Privacy: What Every Student Needs to Know (room: 3501D)
           Gerald Friedland, International Computer Science Institute
           Serge Egelman, International Computer Science Institute
           Daniel Garcia, UC Berkeley

Workshop #30: Decoding CS Principles - A Curriculum from Code.org (room: 3501G)
           Baker Franke, Code.org
           Brook Osborne, Code.org