Roadmap of Suggested Sessions for K-12 Participants in SIGCSE TS 2022

WEDNESDAY

(none)

THURSDAY

Session: Demo Session #1: Early Programming (Pre-College)

Thursday, March 3 / 10:00:00 - 10:45:00

Demo #1A: CodeToon: A New Visual Programming Environment Using Comics for Teaching and Learning Programming in Exhibit Hall C/D
Sangho Suh (University of Waterloo)

Demo #1B: Run, Llama, Run: A Collaborative Physical and Online Coding Game for Children in Exhibit Hall C/D
Stacey A. Koornneef (Ontario Tech University); Jeremy S. Bradbury (Ontario Tech University); Michael A. Miljanovic (University of Toronto)

Demo #1C: Shared Virtual Worlds for Accessible Classroom Robotics in Exhibit Hall C/D
Gordon Stein (Vanderbilt University); Ákos Lédeczi (Vanderbilt University)

Panel: Should the AP Computer Science A Exam Switch to Using Python?

Thursday, March 3 / 10:45:00 - 12:00:00 in 555 A/B (STREAMING ROOM)

Mehran Sahami (Stanford University); Owen Astrachan (Duke University); Sandy Czajka (Riverside Brookfield High School); Adrienne Decker (University at Buffalo); Jennifer Rosato (College of St. Scholastica)

Session: Data Science

Thursday, March 3 / 10:4

Integrated Data Science for Secondary Schools: Design and Assessment of a Curriculum in Providence Ballroom I/IV (Omni)
Emmanuel Schanzer (Bootstrap); Nancy Pfenning (University of Pittsburgh); Flannery Denny (Bootstrap); Sam Dooman (Brown University); Joe Gibbs Politz (University of California, San Diego); Benjamin S. Lerner (Northeastern University); Kathi Fisler (Brown University); Shriram Krishnamurthi (Brown University)

How Computer Science and Statistics Instructors Approach Data Science Pedagogy Differently: Three Case Studies in Providence Ballroom I/IV (Omni)
Sam Lau (UC San Diego); Deborah Nolan (UC Berkeley); Joseph Gonzalez (UC Berkeley); Philip Guo (UC San Diego)

"That's What Science Is, All This Data:" Coding Data Visualizations in Middle School Science Classrooms in Providence Ballroom I/IV (Omni)
Ari Krakowski (University of California, Berkeley); Eric Greenwald (University of California, Berkeley); Natalie Roman (University of California, Berkeley)

Google Supporter Session: Getting More From Google: Engaging with Google's CS Education Programs

Thursday, March 3 / 13:45:00 - 15:00:00 in 551 A/B

Session: IDEA: Accessibility

Thursday, March 3 / 13:45:00 - 15:00:00

Achieving CSforAll: Preparing Special Education Pre-service Teachers to bring Computing to Students with Disabilities in Narragansett Ballroom A (Omni)
Aman Yadav (Michigan State University); Maya Israel (University of Florida); Emily Bouck (Michigan State University); Alexis Cobo (University of Florida); John Samuels (Gainesville)

Session: AI/ML

Thursday, March 3 / 13:45:00 - 15:00:0

“A key to reducing inequities in like, AI, is by reducing inequities everywhere first”: Emerging Critical Consciousness in a Co-Constructed Secondary CS Classroom (CER Best Paper) in Narragansett Ballroom B (Omni)
Jayne Everson (University of Washington); F. Megumi Kivuva (Bard College); Amy J. Ko (University of Washington)

Demo Session #2: Data Structures and Algorithms

Thursday, March 3 / 15:00:00 - 15:45:00

Demo #2A: High School BRIDGES: Visualizations of Data, Data Structures, and More in Exhibit Hall C/D
Kathryn Perry (Burnt Hills - Ballston Lake High School); Cedric Sirianni (Brown University); Owen Bechtel (Burnt Hills - Ballston Lake High School); Kalpathi Subramanian (University of North Carolina at Charlotte); Erik Saule (University of North Carolina at Charlotte)

Demo #2B: StoryQ: A Web-Based Machine Learning and Text Mining Tool for K-12 Students in Exhibit Hall C/D
Jie Chao (Concord Consortium); Bill Finzer (Concord Consortium); Carolyn P. Rosé (Carnegie Mellon University); Shiyan Jiang (North Carolina State University); Michael Yoder (Carnegie Mellon University); James Fiacco (Carnegie Mellon University); Chas Murray (Carnegie Mellon University); Cansu Tatar (North Carolina State University); Kenia Wiedemann (Concord Consortium)

Demo #2C: Let’s Learn Algorithms with AlgoTutorBot! An Entire Course as an Educational Escape Room in Exhibit Hall C/D
Austin Cory Bart (University of Delaware)

Lightning Talks Session #1

Thursday, March 3, 15:45:00 - 17:00:00 in 554 A/B

CoTinker - A Toolkit for Supporting Computational Thinking and Collaboration in High School Education
Line Have Musaeus, Marianne Graves Petersen, Clemens Nylandsted Klokmose, Ole Sejer Iversen, Aarhus University

CSAwesome Java Curriculum
Barbara Ericson, University of Michigan; Beryl Hoffman, Elms College

Teaspoon Languages for Integrating Programming into Social Studies, Language Arts, and Mathematics Secondary Courses
Mark Guzdial, University of Michigan

Computer Science Teacher Preparation to Address Bloom’s 2 Sigma Problem in the Post-COVID19 Age
Rinat B. Rosenberg-Kima, Technion - Israel Institute of Technology

Session: Panel: Advancing Opportunities for CS Teachers: How To Best Support Professional Development for Experienced Teachers in K-12 CS Education

Thursday, March 3 / 15:45:00 - 17:00:00 in 555 A/B (STREAMING ROOM)
Yasmin Kafai (University of Pennsylvania); Joanna Goode (University of Oregon); Linnea Logan (White Fish Bay Schools); Bryan Twarek (CSTA); Deborah Fields (Utah State University); Aman Yadav (Michigan State University)

Special Session: K-12 Computing Education and Education Research Resources

Thursday, March 3 / 15:45:00 - 17:00:00 in 556 A/B (STREAMING ROOM)
Monica M. McGill (CSEdResearch.org & Knox College); Jake Baskin (Computer Science Teachers Association); Miles Berry (University of Roehampton); Quinn Burke (Digital Promise); Leigh Ann Delyser (CSforALL); Shuchi Grover (Looking Glass Venture & Stanford University); Colleen Lewis (University of Illinois at Urbana-Champaign); Briana B. Morrison (University of Virginia); Davina Pruitt-Mentle (National Initiative for Cybersecurity Education (NICE) & National Institute of Standards and Technology (NIST))

Replit Supporter Session: Collaborative Coding with Replit: Zero-Setup Online Coding for Any Device

Thursday, March 3 / 17:30:00 - 18:20:00 in 553 A/B

Birds-of-a-Feather (BOF): Flock B and Flock D

Thursday, March 3 / 18:30:00 - 19:20:00

Culturally Responsive Pedagogy in Computer Science (CR in CS)- K-12 Teacher Professional Development- Needs and Challenges in 556 A/B
Raena Cota (New Mexico State University); Enrico Pontelli (New Mexico State University); Paige Prescott (Computer Science Alliance); Lauren Curry (Las Cruces Public Schools); Lisa Hufstedler (Las Cruces Public Schools); Francis Vigil (National Indian Education Association); Yolanda Lozano (Computer Science Alliance); David Rutledge (New Mexico State University)

FRIDAY

Demo Session #3: Block-Based Programming and Testing

Friday, March 4 / 10:00:00 - 10:45:00

Demo #3A: Strype: Frame-Based Editing tool for programming the Micro:bit through Python in Exhibit Hall C/D
Charalampos Kyfonidis (King's College London); Pierre Weill-Tessier (King's College London); Neil Brown (King's College London)

Demo #3B: Snap! 7 – Microworlds, Scenes, and Extensions! in Exhibit Hall C/D
Dan Garcia (UC Berkeley); Michael Ball (UC Berkeley); Yuan Garcia (Mills High School)

Demo #3C: Testing Tutor: A Testing Pedagogical Active Learning Platform in Exhibit Hall C/D
Lucas Cordova (Western Oregon University); Jeffrey Carver (University of Alabama); Gursimran Walia (Georgia Southern University)

Poster Session #1

Friday, March 4 / 10:00:00 - 12:00:00 in Exhibit Hall C/D

An Exploration into School District Decision Making Around Elementary Computer Science Programs
Eleanor Richard, University of Massachusetts Dartmouth

Building K-12 Teacher Capacity to Expand Uptake in a National CS Curriculum
Keith Quille, Roisin Faherty, TU Dublin; Brett A. Becker, UCD

Microsoft Supporter Session: AP Computer Science Principles with Microsoft MakeCode & TEALS

Friday, March 4 / 10:45:00 - 12:00:00 in 553 A/B

Session: Collaboration: Pedagogical Strategies

Friday, March 4 / 10:45:00 - 12:00:00

Experience Report on the Use of Breakout Rooms in a Large Online Course in Waterplace Ballroom I (Omni) Sadia Sharmin (University of Toronto); Larry Yueli Zhang (York University)

Pair Programming in a Pandemic: Understanding Middle School Students' Remote Collaboration Experiences in Waterplace Ballroom I (Omni)
Aisha Chung Galdo (University of Florida); Mehmet Celepkolu (University of Florida); Nicholas Lytle (University of Florida); Kristy Elizabeth Boyer (University of Florida)

It's Challenging but Doable: Lessons Learned from a Remote Collaborative Coding Camp for Elementary Students in Waterplace Ballroom I (Omni)
Yingbo Ma (University of Florida); Julianna Martinez Ruiz (University of Florida); Timothy D. Brown (University of Florida); Kiana-Alize Diaz (University of Florida); Adam M. Gaweda (North Carolina State University); Mehmet Celepkolu (University of Florida); Kristy Elizabeth Boyer (University of Florida); Collin F. Lynch (North Carolina State University); Eric Wiebe (North Carolina State University)

Session: K-12: Policy Trends and Considerations

Friday, March 4 / 10:45:00 - 12:00:00
Trends in CS Teacher Professional Development: A Report from the CSTA PD Committee in Narragansett Ballroom B (Omni)
Michelle Friend (University of Nebraska at Omaha); Bryan Twarek (Computer Science Teachers Association); James Koontz (Fairfax County Public Schools); Amanda Bell (Computer Science Teachers Association); Abigail Joseph (The Harker School)

iSchools as Venues for Expanding the K-12 Computer Science Teacher Pipeline in Narragansett Ballroom B (Omni) David Weintrop (University of Maryland)

Standards-Aligned Instructional Supports to Promote Computer Science Teachers' Pedagogical Content Knowledge in Narragansett Ballroom B (Omni)
Satabdi Basu (SRI International); Daisy Rutstein (SRI International); Carol Tate (SRI International); Arif Rachmatullah (SRI International); Hui Yang (SRI International)

Session: Panel: The Needs of K-12 Computer Science Educators towards Building an Inclusive Classroom: Implications for Policy

Friday, March 4 / 13:45:00 - 15:00:00 in 552 A/B (STREAMING ROOM)
Kalisha Davis (Kapor Center); Bryan Twarek (Computer Science Teachers Association); Dinah Becton-Consuegra (Kapor Center); Sonia Koshy (Kapor Center)

Session: Special Session: Transitioning from Blocks to Text

Friday, March 4 / 13:45:00 - 15:00:00 in 556 A/B (STREAMING ROOM)
Neil C. C. Brown (King's College London); Michael Kölling (King's College London); Charalampos Kyfonidis (King's College London); Pierre Weill-Tessier (King's College London)

Session: K-12: Developing the Evidence Base

Friday, March 4 / 13:45:00 - 15:00:00

Developing Evidence-Based Teacher Practice Briefs with Middle School Computer Science Teachers in Narragansett Ballroom B (Omni)
Monica M. McGill (CSEdResearch.org); Anni Reinking (CSEdResearch.org)

Elementary Students' Understanding of Variables in Computational Thinking-Integrated Instruction: A Mixed Methods Study in Narragansett Ballroom B (Omni)
Feiya Luo (The University of Alabama); Wei Yan (University of Florida); Ruohan Liu (University of Florida); Maya Israel (University of Florida)

Reimagining Professional Development for K-8 CS Teachers: Evaluating a Virtual, Diffuse Model in Narragansett Ballroom B (Omni)
Jennifer Tsan (University of Chicago); Merijke Coenraad (University of Maryland); Zachary Crenshaw (University of Chicago); Jen Palmer (University of Chicago); Donna Eatinger (University of Chicago); Kristan Beck (Chicago Public Schools); David Weintrop (University of Maryland); Diana Franklin (University of Chicago)

Poster Session #2

Friday, March 4 / 13:00:00 - 15:00:00 in Exhibit Hall C/D

The Sol y Agua RPP: A Bilingual and Culturally Responsive Approach to Introduce Computational Thinking in Middle School
Monika Akbar, Katherine Mortimer, Grecia Navarrete, Stephanie Galvan, George Molina, Romelia Reyes, The University of Texas at El Paso; Cynthia Ontiveros, Scott Gray, Sarah Escandon, Monica Lyons, Pedro Delgado, Victor Medrano, Haleigh Kneedler, Patricia Benitez, Jacob Ramirez, Jesus Vazquez, Melissa Anderson, El Paso Independent School District

Introducing Programming to Middle School Students to Increase Knowledge and Interest in Computer Science
Callan J. Noak, Jennifer L. Tsan, Sujing Wang, Stefan Andrei, Lamar University

Can CS1 Curricula Be Used For Middle School Computer Programming Education?
Gurmeher Kaur, Chapel Hill High School; Kris Jordan, Jasleen Kaur, University of North Carolina at Chapel Hill

Equity in Access to and Participation in K-12 Computer Science Education
Madeline L Haynes, Yiwen Yang, Natashia Bibriescas, Miriam Jacobson, Stephanie Baker, Jayce Warner, Texas Advanced Computing Center

How is Computational Thinking Defined in Elementary Science?
Jennifer Pietros, Sara Sweetman, Minsuk Shim, University of Rhode Island

Poster Session #4 Virtual

Friday, March 4 / 13:00:00 - 15:00:00

Equity-focused Peer Mentoring for High School CS Teachers
Aleata Hubbard Cheuoua, WestEd; Bryan Twarek, Ed Campos, CSTA; Amy Fetherston, CSTA Wisconsin Dairyland; Yvonne Kao, WestEd; Linnea Logan, CSTA Wisconsin Dairyland

A Novel Machine Learning and Artificial Intelligence Course for Secondary School Students
Joyce Mahon, University College Dublin; Keith Quille, Technological University of Dublin; Brian Mac Namee, Brett A. Becker, University College Dublin

Increasing Computing Participation through School Counselors
Wendy Chi, National Center for Women & Information Technology; Patricia Morreale, Jean Chu, Kean University; Angela Cleveland, Maureen Stewart, National Center for Women & Information Technology

Enhance Capacity to Foster Secondary Computer Science Teachers in Multiple Pathways
Dan Chia-Tien Lo, Brian Lawler, Kennesaw State University

2022 ACM Student Research Competition Posters

Friday, March 4 / 13:45:00 - 17:00:00 in Providence Ballroom I/IV

Graduate

Equipping Middle School Teachers with Culturally Responsive Pedagogy for Computer Science Through Community-centered Professional Development
Gillian Bausch, University at Albany, SUNY

Cross-grade Comparison of Computational Thinking in Young Children Using Normalized Unplugged Assessment Scores
Emily Relkin, Tufts University

Undergraduate

K-12 CS Teacher Licensing in the US
Jessica M Yauney, Brigham Young University

Session: K-12: Fostering Partnerships

Friday, March 4 / 15:45:00 - 17:00:00

How a Research-Practice Partnership Refined its Strategy for Integrating CS/CT into K-5 Curricula: An Experience Report in Narragansett Ballroom B (Omni)
W. Richards Adrion (University of Massachusetts Amherst); Katie Bevan (Springfield Public Schools); Paul Foster (Springfield Public Schools); Denise Matuszczak (Springfield Public Schools); Rachel Miller (Springfield Public Schools); Laura Rita (Springfield Public Schools); Florence R. Sullivan (University of Massachusetts Amherst); Sneha Veeragoudar (University of Massachusetts Amherst); Scott Wohlers (Springfield Public Schools); Melissa Zeitz (Springfield Public Schools)

Creating a High Quality, High Impact CS Teacher Prep Program in Narragansett Ballroom B (Omni)
J. Ben Schafer (University of Northern Iowa); J. Philip East (University of Northern Iowa)

Building CS Teacher Capacity Through Comprehensive College/High School Partnerships in Narragansett Ballroom B (Omni)
Robin Flatland (Siena College); James Matthews (Siena College); Pauline White (Siena College); Mary Anne Egan (Siena College); Jesse Moya (Siena College)

Microsoft Supporter Session — MakeCode Sampler Pack!

Friday, March 4 / 19:00 - 22:00

Jacqueline Russell (Microsoft)

Looking for some high-engagement options for teaching CS? Join us for a fun, hands-on workshop where we'll take a tour around MakeCode – exploring physical computing with the micro:bit, game development with MakeCode Arcade, and game modding with Minecraft! We will walk through step-by-step coding challenges and build projects together that you can use in the classroom. This is a beginner-level workshop – no prior experience required. Attendees should bring a smile and a laptop to the session. Please note: this workshop will only be hosted in person. | Register for the Microsoft MakeCode Sampler Pack! session: https://forms.office.com/r/R0F2ACEuss

Workshops 3xx

Friday, March 4 / 19:00:00 - 20:00:00

W308: Making Art with and about Artificial Intelligence: Three Approaches to Teaching AI and AI Ethics to Middle and High School Students in Providence Ballroom II/III (Omni)
Benjamin Walsh (University of Colorado Boulder); Safinah Ali (Massachusetts Institute of Technology); Francisco Castro (University of Massachusetts Amherst); Kayla Desportes (New York University); Daniella DiPaola (Massachusetts Institute of Technology); Irene Lee (Massachusetts Institute of Technology); William Payne (New York University); Scott Sieke (CU Science Discovery); Helen Zhang (Boston College)

Saturday

Session: Lightning Talks #2

Saturday, March 5 / 9:20:00 - 10:35:00

What Programming IDEs Can Learn From MineCraft in Waterplace Ballroom I (Omni)
Yuan Garcia (Mills High School)

Expanding Computer Science Access by Studying the Impact of AP CS Principles Curriculum in Waterplace Ballroom I (Omni)
Efrain Lopez (IDEA Public Schools)

(Virtual) Girls Immersed in Robotics Learning in Waterplace Ballroom I (Omni)
Beryl Hoffman (Elms College); Florence Sullivan (University of Massachusetts, Amherst); Daniel Black (Holyoke Codes); Jacob Bashista (Holyoke Codes); Rachel Darley Gary (Moriarty Research and Evaluation Associates, LLC); Isabel Castellanos (University of Massachusetts, Amherst); Mary Moriarty (Moriarty Research and Evaluation Associates, LLC); Elisabeth Fein (Holyoke Codes); Özkan Yildiz (University of Massachusetts, Amherst); Ali Söken (University of Massachusetts, Amherst); Andrew Pasquale (Holyoke Codes)

Session: Considering Math

Saturday, March 5 / 9:20:00 - 10:35:00

Exploring Math + CS in a Secondary Education Methods Course in Narragansett Ballroom B (Omni)
Paris Kalathas (Oregon State University); Jennifer Parham-Mocello (Oregon State University); Rebekah Elliot (Oregon State University); Elise Lockwood (Oregon State University)

TOCE Highlights #1

Saturday, March 5 / 9:20:00 - 10:35:00

High School Calculus and Computer Science Course Taking as Predictors of Success in Introductory College Computer Science in Providence Ballroom II/III (Omni)
Chen Chen (Harvard-Smithsonian Center for Astrophysics); Jane M. Kang (Harvard Graduate School of Education); Gerhard Sonnert (Harvard College Observatory); Philip M. Sadler (Harvard-Smithsonian Center for Astrophysics)

Parental Involvement in Computer Science Education and Computing Attitudes and Behaviours in the Home: Model and Scale Development in Virtual Room
Nina Bresnihan (University of Dublin); Aibhín Bray (University of Dublin); Lorraine Fisher (University of Dublin); Glenn Strong (University of Dublin); Richard Millwood (University of Dublin); Brendan Tangney (University of Dublin)

Lightning Talks Session #2

Saturday, March 5, 09:45:00 - 10:35:00 in 554 A/B

What Programming IDEs Can Learn From MineCraft
Yuan Garcia, Mills High School

Lightning Talks Session #2 Virtual

Saturday, March 5, 09:45:00 - 10:35:00

Girls Immersed in Robotics Learning
Beryl Hoffman, Elms College; Florence Sullivan, University of Massachusetts, Amherst; Daniel Black, Jacob Bashista, Holyoke Codes; Rachel Darley Gary, Moriarty Research and Evaluation Associates, LLC; Isabel Castellanos, University of Massachusetts, Amherst; Mary Moriarty, Moriarty Research and Evaluation Associates, LLC; Elisabeth Fein, Holyoke Codes; Özkan Yildiz, Ali Söken, University of Massachusetts, Amherst; Andrew Pasquale, Holyoke Codes

Poster Session #3

Friday, March 4 / 10:35:00 - 12:30:00 in Exhibit Hall C/D

Beyond MCQ: Designing Innovative, Engaging, Autogradable Assessments for Supporting Teaching & Learning in K-12 Computer Science
Shuchi Grover, Bob Carmichael, Shivram Venkatasubramaniam, Looking Glass Ventures

Training Near-Peer Mentors for Instructional Roles in Informal K-12 Computing Programs
Kristina Kramarczuk, Maya Narayanasamy, Kate Atchison, Jandelyn Plane, University of Maryland, College Park

Reflections of Cybersecurity Workshop for K-12 Teachers and High School Students
Chad Mourning, David Juedes, Allyson Hallman-Thrasher, Harsha Chenji, Savas Kaya, Avinash Karanth, Ohio University

Co-Designing Learning Experiences to Support the Development of Culturally Relevant CS Lessons in Elementary Classrooms
Jennie Chiu, University of Virginia; Anita Crowder, CodeVA; Dwayne Ray Cormier, Virginia Commonwealth University; Sheila Mosby, Petersburg School District; Eric Bredder, University of Virginia

Poster Session #3 Virtual

Friday, March 4 / 10:35:00 - 12:30:00

Developing an Ecosystem of Support for K-12 CS Educators
Bryan Twarek (Computer Science Teachers Association); Janice Mak, Arizona State University; Shaina Glass, Computer Science Teachers Association; Sababu Chaka Barashango, Georgia Institute of Technology; Cindi Chang, Nevada Department of Education

Supporting Teacher Professional Learning and Curriculum Implementation Through Collaborative Curriculum Design
Lijun Ni, Gillian Bausch, University at Albany, State University of New York; Bernardo Feliciano, Hsien-Yuan Hsu, Fred Martin, University of Massachusetts Lowell

Session: Service Learning

Saturday, March 5 / 11:15:00 - 12:30:00

A Framework for Socially-Relevant Service-Learning Internship Experiences for High School Students (PCI Best Paper) in Narragansett Ballroom C (Omni)
Veronica Cateté (North Carolina State University); Amy Isvik (North Carolina State University); Marnie Hill (North Carolina State University)

Workshops 4xx

Saturday, March 5 / 15:00:00 - 18:00:00

W402: Beauty and Joy Computing: AP CS Principles & Middle School Curriculum in 553 A/B
Michael Ball (University of California, Berkeley); Lauren Mock (University of California, Berkeley); Dan Garcia (University of California, Berkeley); Tiffany Barnes (North Carolina State University); Marnie Hill (North Carolina State University); Mary Fries (Education Development Center); Pamela Fox (University of California, Berkeley); Yuan Garcia (Millbrae High School)

Session: Virtual Session: Programmatic Considerations

TBD / -

Barriers to New Zealand High School CS Education - Learners' Perspectives in Virtual Room
Chamindi K. Samarasekara (University of Otago); Claudia Ott (University of Otago); Anthony Robins (University of Otago)

Session: Virtual Session: Tools

TBD / -

Scratch and Sense: Using Real-Time Sensor Data to Motivate Students Learning Scratch in Virtual Room
Hussel Suriyaarachchi (The University of Auckland); Paul Denny (The University of Auckland); Suranga Nanayakkara (The University of Auckland)