Welcome to the 28th Annual CCSC Central Plains Regional conference, to Drury University and to Springfield, Missouri. Our program features two distinguished speakers, Michael Newton, Software Scientists/Chief Engineer at L3Harris Technologies, and Mark Garton, SR Director of IT Governance and Data Strategy at O'Reilly Auto Parts Stores, Inc. The conference features an engaging program of paper presentations, tutorials, panels, “Nifty Assignments”, Lightning Talks, student poster presentations, student papers, and a student programming contest. Activities begin on Friday morning with a pre-conference workshop and conclude on Saturday afternoon with our annual student programming contest.

A wide range of topics are addressed by conference presentations. Topics vary from preparing students to work as developers and IT professionals in a post-pandemic work environment to teaching functional programming remotely. In addition to technical sessions, time for networking has been provided during numerous breaks. Take time to be challenged by our presenters, to glean new ideas for use in your classroom and to visit with others who have a passion for improving computing education.
Friday Opening Keynote Speaker

Michael Newton is a Software Scientist at L3Harris Technologies leading system engineering and software engineering teams in the development of mission system software. He is a graduate of Southwest Baptist University with a B.S. in Computer Science/Mathematics and a M.S in Software Engineering from Texas Christian University. His career includes technically leading geographic disparate, embedded software engineering teams at Motorola Solutions for 28 years. In addition, he taught Computer Science courses from a practitioners perspective at Southwest Baptist University during the 2002-2003 school year.

Dinner Keynote Speaker

Mark Garton is the Senior Director of IT Governance and Data Strategy at O’Reilly Auto Parts Stores, Inc. He leads teams responsible for information security, software quality assurance, and data strategy. With over 24 years of experience as an IT professional, he has worked in information technology from software development to establishing a cyber security program. He is passionate about developing leaders and created a leadership development program for new technology managers. He holds a BA in Mathematics from Drury University and a Master's Degree in Computer Information Systems from Missouri State University.
Pre-conference Workshop

Jaime Payton, Ph.D.
Chair of the Department of Computer and Information Sciences
Temple University

Dr. Payton is the PI of the STARS Computing Corps, an NSF-funded alliance of 50 colleges and universities that aims to broaden participation of underrepresented groups in computing. She is also a co-PI on the BRIDGES and IUSE projects.

K.R. Subramanian, Ph.D.
Department of Computer Science, University of North Carolina

Dr. Subramanian is the PI on the NSF TUES award, "Building BRIDGES Within the Undergraduate Major in Computer Science", as well as the NSF IUSE Award, "Retaining and Engaging Computer Science majors by Solving and Visualizing Algorithmic Problems on Real-world Data Sets", along with Co-PIs Jamie Payton and Erik Saule.

Erik Saule, Ph.D.
Department of Computer Science, University of North Carolina

Dr. Saule's educational research interests include the education of parallel computing, data structures, and algorithms. He served as the Program Chair of the 2018 Workshop on Education for High-Performance Computing (EduHPC-18). He is a co-PI of an NSF IUSE award, the PI of an NSF CyberTraining award, and the recipient of an NSF CAREER award.
# Schedule of Events
## Friday, April 1, 2022

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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| 9:00 am - Noon | Pre-conference Workshop  
Real-World Data, Interactive Games and Data Structure Visualization in Early CS Courses Using BRIDGES  
Jaime Payton, Temple University; K.R. Subramanian and Erik Saule, University of North Carolina | Springfield Hall (second floor) Lab A               |
| 1:00 - 2:00 pm | Opening Assembly  
A Software Engineering Career from the Perspective of Availability, Reliability and Maintainability  
Keynote: Michael Newton, L3Harris Corporation | Lay Auditorium                                      |
| 2:00 - 5:00 pm | Vendor Fair  
LOCATION: Breech Vestibule                                           |

### 2:15 - 3:15 pm

**Papers**  
LOCATION: Breech 103  
Moderator TBD  
Integrating Data Science Into a Computer Science Curriculum  
*Kian Pokorny/McKendree University*  
How to Secure ABET Accreditation for a Cybersecurity Program: A Case Study  
*Xiaodong Yue, Belinda Copus, Hyungbae Park/University of Central Missouri*

**Panels**  
LOCATION: Breech 102  
Moderator TBD  
Challenges Developing and Teaching Online Professional Courses for Technical Graduate Programs  
*Denise Case, Ajay Bandi, Nathan Eloe, Aziz Fellah, Charles Hoot/Northwest Missouri State University*

### 3:15 - 4:00 pm

**Papers**  
LOCATION: Breech 103  
Moderator TBD  
A Snapshot of Current and Trending Practices in Mobile Application Development  
*Michael Rogers/University of Wisconsin Oshkosh; Jonathan Gratch/Texas Woman’s University*  
Web Accessibility: An Evaluation of CCSC Central Plains Participant’s University Homepages  
*Michael Whitney, Stephen Dannelly/Winthrop University*

**Panels**  
LOCATION: Breech 102  
Moderator TBD  
Teaching Multiple Graduate Sections with Large Class Sizes  
*Nathan Eloe, Ajay Bandi, Denise Case, Aziz Fellah, Charles Hoot/Northwest Missouri State University*

### 5:00 - 5:30 pm

**Meet and Greet**  
LOCATION: Breech Student Lounge

### 5:45 - 8:00 pm

**Banquet**  
How the Pandemic Has Changed Talent Management  
Keynote: Mark Garton, O’Reilly Auto Parts Stores, Inc.  
LOCATION: The Robert W Plaster Family Gallery/O’Reilly Event Center
Schedule of Events  
Saturday, April 2, 2022

8:30 - 9:00 am  
Poster Contest Setup  
LOCATION: Wilhoit Theatre Vestibule (South entrance Breech)

9:00 - 10:00 am  
Flutter Workshop  
LOCATION: TBD  
Moderator TBD  
Flutter: n Platforms, 1 Codebase, 0 Problems - Workshop  
Michael Rogers/University of Wisconsin Oshkosh; Bill Siever  
Washington University in St. Louis

10:00 - 10:30 am  
Break and Vendor's Exhibits  
LOCATION: Breech Student Lounge

10:30 - 11:30 am  
Papers  
LOCATION: Breech 103  
Moderator TBD  
"Nifty Assignments"/Lightning Talks  
LOCATION: Breech 102  
Moderator TBD  
Student Papers  
LOCATION: Breech 105  
Moderator TBD  
Papers  
LOCATION: Breech 103  
Moderator TBD  
"Nifty Assignments"/Lightning Talks  
LOCATION: Breech 102  
Moderator TBD  
Student Papers  
LOCATION: Breech 105  
Moderator TBD  
A Literature Review on User Acceptance of AI-Enabled Application  
Gary Yu Zhao/Dakota State University  
Cindy Zhiling Tu/Northwest Missouri State University  
A Way to Visualize Higher Dimensional Arrays, Matrices and Spaces  
Cong-Cong Xing/Nicholls State University  
Jun Huang/Baylor University  
A Functional Programming Course In Remote Learning Model: An Experience Report  
Fahmida Hamid/New College of Florida

11:45 am - 12:45 pm  
CCSC Business Meeting/Luncheon  
LOCATION: The Robert W Plaster Family Gallery/O’Reilly Event Center  
Programming Contest Meeting/Luncheon  
LOCATION: The Robert W Plaster Family Gallery/O’Reilly Event Center

1:00 - 5:00 pm  
Programming Contest  
LOCATION: Springfield Hall (second floor) Lab A

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