

21st ANNUAL CONSORTIUM FOR COMPUTING SCIENCES IN COLLEGES—CENTRAL PLAINS REGION

April 10-11, 2015



College of the Ozarks

1 Industrial Place, Point Lookout, MO 65726
www.cofo.edu



In Cooperation



Time	Track 1	Track 2	Track 3
9:00-12:00	<p>Pre-Conference Workshop —307 Plaster Computer Lab HFOSS: Humanitarian Open Source Software in the College Classroom</p> <p>Sean Patrick Goggins Assistant Professor, Sociotechnical Data Scientist University of Missouri, MU Informatics Institute</p> <p>"Working in an OSS environment has helped teach me the importance of documentation and how development outside of college works. ... I finally got a feel for what is expected of me as a software engineer.... I appreciate the lessons learned in this class because it was a real-life experience in the work field as opposed to studying theoretical approaches and practicing writing programs which will never be used again." Senior student, Western New England College, December, 2010.</p> <p>Experience with undergraduate participation in Humanitarian Free and Open Source Software (HFOSS) demonstrates potential to: a) motivate students, b) create excellent learning opportunities, and c) help attract and retain female students.</p> <p>This project, OpenFE, for Open source Faculty Expertise, will develop faculty expertise in participating in HFOSS projects and create and evaluate learning materials needed to apply the HFOSS approach to diverse settings including community colleges. This workshop will provide an introduction to current projects and approaches, sharing access to resources developed through our project team over the past five years.</p>		
1:00 - 2:00	<p>Opening Keynote Address - Plaster Auditorium</p> <p>Optimizing Business Decisions Jim Ingram, Manager - Business Intelligence Garmin International Olathe, KS USA</p> <p>This presentation will focus on key areas that drive Garmin's business intelligence strategy: "Uniting data, technology, analytics, and human knowledge to optimize business decisions and ultimately drive Garmin International's success". A real world example will be provided focusing on Garmin's Fitness and Wellness products. This example will demonstrate the synchronization of data from a Garmin device, ingestion of data into both the enterprise data warehouse and Big Data infrastructure and final delivery to the presentation layer. An analysis of the data warehouse versus Big Data solution will be presented.</p>		
Session 1 2:10 - 3:10	<p>Papers: Plaster 311 Adding Computing Theory to a Course on Computer Design and Architecture Jesse Eickholt, Central Michigan University</p> <p>Splitting Tower of Hanoi into Odd and Even Disks Suchindran Maniccam, Eastern Michigan University</p> <p>Session Moderator: Scott Bell</p>	<p>Nifty Assignments: Plaster 306 Meaningful Geometrics: Bridging a Path from Scratch to Python Brian Kokensparger, Creighton University</p> <p>Modeling Alcohol Absorption and Elimination from the Human Body: A Case Study in Software Development Edward Mirielli, Westminster College Linda Webster, Westminster College</p> <p>Session Moderator: Caleb Berkstresser</p>	<p>Panel: Plaster 309 University, K-12, and Businesses Collaborate in Professional Advisory Team Diana Linville, Joni Adkins, Carol Spradling, Northwest Missouri State University Robert Moulder, Cerner Corporation Jim Ingram, Garmin International Lesley Martin, Staley High School</p> <p>Session Moderator: Tim DeClue</p>
3:15 - 3:45	Break - Vendors and refreshments - Plaster, 3rd Floor Lobby Area		
Session 2 3:50 - 4:50	<p>Papers: Plaster 311 Are MOOCS an Appropriate Pedagogy for Training K-12 Teachers Computer Science Concepts Michael P. Rogers, Northwest Missouri State University Carol Spradling, Northwest Missouri State University Diana Linville, Northwest Missouri State University Judy Clark, Northwest Missouri State University</p> <p>Web Apps in the Computer Science Curriculum: A Guide Using Heroku, Java Servlets, and Postgres Jeffery Solheim, Fort Hays State University</p> <p>Session Moderator: Scott Bell</p>	<p>Panel: Plaster 306 Managing Student Software Engineering Projects Linda Webster, Westminster College Tim DeClue, Southwest Baptist University Scott Sigman, Drury University</p> <p>Session Moderator: Michael Haas</p>	<p>Lightning Talks: Plaster 309</p> <p>Session Moderator: Kendall Bingham</p>
4:55 - 5:10	Break - Vendors and refreshments - Plaster ,3rd Floor Lobby Area		
Session 3 5:15 - 6:15	<p>Papers: Plaster 311 A Refined C-based Infrastructure & Curriculum to Support Robots in Introductory CS Henry Walker, Grinnell College Vasilisa Bashlovkina, Grinnell College Anita DeWitt, Grinnell College Anqing Liu, Grinnell College Nicolas Knoebber, Grinnell College</p> <p>Switching to Swift: Instructional Issues and Student Sentiment Michael P. Rogers, Northwest Missouri State University Bill Siever, Western Illinois University</p> <p>Session Moderator: Ron McCleary</p>	<p>Panel: Plaster 306 NoSQL in Database Education: Incorporating Non-Relational Concepts into a Relational Database Course Wei Xiong, Northwest Missouri State University Doug Hawley, Northwest Missouri State University David Monismith, Northwest Missouri State University</p> <p>Session Moderator: David Pope</p>	<p>Lightning Talks: Student Papers Plaster 309</p> <p>Session Moderator: Linda Webster</p>

Time	Track 1	Track 2	Track 3	Friday
6:30 - 8:30	Banquet and Keynote - College Center Lounge The Evolution of Banking Technology David Foss, President of Jack Henry & Associates, Inc. Join David Foss as he explores the evolution of banking technology and how it has shaped today's financial services industry. He will discuss mobile technology, omni-channel delivery, and will explain how select JHA solutions are driving banks' success in these areas. He will also talk about the programming languages used at JHA and the ideal skills and certifications for job candidates.			
Session 4 8:30 - 9:30	Papers: Plaster 209 Towards Dynamic Heterogeneous Team Restructuring in Task Allocation Domains George Thomas, University of Wisconsin, Oshkosh Transactions: They're Not Just for Banking Any More John Trono, Saint Michaels College Session Moderator: TBD	Panel: Plaster 210 Flipping the Classroom in Introductory CS Courses Brian Hare, University of Missouri-Kansas City Joni Adkins, Northwest Missouri State University Caleb Berkstresser, College of the Ozarks Edward Mirielli, Westminster College Linda Webster, Westminster College Session Moderator: Brian Hare	K-12 Keynote: Plaster Auditorium Tammy Pirmann, CSTA Board of Directors School District Representative Topic: How is Computer Science Taught in the Various K-12 Levels? What role do national standards, teacher certification, graduation requirements, teacher membership organization and vertical partnerships play? The current national spotlight on CS in K-12 puts us in an interesting position to make real changes if we play our cards right.	
9:35 - 9:55	Break - Refreshments - 3rd floor lobby area Career Day Employers - 3rd Floor Lobby Area			
Session 5 10:00 - 11:00	Panel: Plaster 210 Transfer Articulation Agreements in the Computer Science and Information Technology Disciplines Linda Webster, Westminster College Michael Hass, Oklahoma State University David Heise, Lincoln University Rex McKanry, St. Charles Community College Adam Beamer, Westminster College Session Moderator: Mahmoud Yousef	Workshop - Plaster 307: A Tutorial on Swift Baoqiang Yan, Missouri Western State University	K-12 Panel: Plaster 209 Optional Approaches to Curriculum for High School Computer Science Angie Klein, Liberty High School Lesley Martin, Staley High School Curt Kelly, Northland CAPS Session Moderator: Diana Linville	
11:00 - 11:30	Break, Refreshments - 3rd floor lobby area Career Day Employers - 3rd floor lobby area Poster Contest Judging and Viewing Begins - Plaster, 2nd Floor Lobby Area			
Session 6 11:30 - 12:30	Workshop - Plaster 207: EarSketch & Computational Music Tim DeClue, Southwest Baptist University	Workshop - Plaster 307: Agent-Based Modeling and Netlogo in the Introductory Computer Science Curriculum Matthew Dickerson, Middlebury College	K-12 Lightning Talks: Plaster 209 Session Moderator: Diana Linville	
	12:45 - 12:50 • Poster Awards Ceremony - During Luncheon			
	12:50-1:50 • Business Meeting and Luncheon —Plaster Patio (lobby area if it rains)		1:00 - 1:50 • Luncheon and Programming Contest Meeting - Plaster Auditorium	
	2:00 - 3:00 • CSTA Meeting — Plaster Auditorium			
	2:00 - 6:00 • Student Programming Contest			

2015 CCSC-CP Conference Acknowledgements

Jim Buchan, Conference Chair
College of the Ozarks

Caleb Berkstresser, Local Facilities Coordinator, Regional Vendors/
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College of the Ozarks

Baoqiang Yan, Conference Co-Chair, 2016 Conference Chair, Keynote
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Judy Mullins, Regional CCSC Representative, Board Chair, Pre-
Conference Workshop
University of Missouri-Kansas City

Edward Mirielli, Regional Registrar, Conference Publicity
Westminster College

Scott Bell, Regional CCSC Secretary, Papers, K-12 Outreach
Kansas State University

Brian Hare, Regional CCSC Treasurer
University of Missouri-Kansas City

Baochuan Lu, Regional CCSC Editor
Southwest Baptist University

Michael Rogers, Regional CCSC Webmaster, Conference Publicity,
Keynote Speaker, Nifty Assignments
Northwest Missouri State University

Carol Spradling, Past Regional CCSC Representative, Regional
Vendors/Employers, Keynote Speaker
Northwest Missouri State University

David Heise, Conference Papers Chair
Lincoln University

David Pope, Panels and Tutorials, Two-Year College Outreach
Ozarks Technical Community College

Ron McCleary, Panels and Tutorials
Avila University

Michael Haas, Nifty Assignments
Oklahoma State University

Mahmoud Yousef, Nifty Assignments
University of Central Missouri

Kendall Bingham, Lightning Talks
University of Missouri-Kansas City

Diana Linville, Lightning Talks, K-12
Northwest Missouri State University

Tim DeClue, K-12 Outreach
Southwest Baptist University

Rick Barker, Student Poster Contest
Washburn University

Scott Sigman, National CCSC President, Student Poster Contest
Drury University

Jim Cain, Student Programming Contest
Southwest Baptist University

Charles Riedesel, Student Programming Contest
University of Nebraska, Lincoln

Linda Webster, Regional Vendors/Employers, Two-Year College Outreach
Westminster University

Lewis McKenzie, Lightning Talks K-12, K-12 Outreach
Hickman Mills School District, Ruskin High School

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- David Heise, Lincoln University for providing and supporting the online system to manage and provide peer reviewing for papers, workshops, tutorials, and other conference submissions.