



# 33<sup>rd</sup> Annual CCSC

## Rocky Mountain Conference Program

### Northern Arizona University

Friday, October 18, 2024

12:00 pm - 12:55 pm

Location: : Engineering (69), room 314

Dr. Thyago Mota, PhD, Conference Chair

Welcome Note Dr. Charles Chadwell, Dean

College of Engineering, Informatics, and Applied Sciences

Keynote Speech Dr. Morgan Vigil-Hayes

#### From Research to Relevance: Engaging Native Communities in Computer Science through Participatory Action Research

##### **Abstract:**

In this talk, Dr. Vigil-Hayes will describe the challenges and opportunities of translating computer science research with tribal networks into a computer science curriculum that resonates with a broad audience in tribal communities. Using a recent CS4All project as a case study, she will address common obstacles, such as aligning technical content with local contexts and integrating cultural relevance. The presentation will also discuss strategies for co-developing educational materials that empower learners, build capacity within communities, and foster courageous CS learning communities.

**Bio:** Morgan Vigil-Hayes is an associate professor of computer science in the School of Informatics, Computing, and Cyber Systems and the Gumerman Professor in the Honors College at Northern Arizona University. Her research uses techniques from computer networks and human-computer interaction to design novel, networked systems from a community-centered perspective. Dr. Vigil-Hayes' work centers the information needs and practices of rural and tribal communities in North America with the goal of addressing longstanding digital and social inequities. Her recent NSF CAREER award focuses on designing new approaches to engaging communities in measuring mobile broadband to create more representative coverage maps that can be used to inform broadband development and policy efforts. She teaches courses on computer networks, network analysis, social computing, and cyber ethics. Dr. Vigil-Hayes received her PhD in computer science from UC Santa Barbara and her BS in computer science from Westmont College.



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Friday, October 18, 2024  
*Paper Sessions*  
Location: : Engineering (69), room 314

**1:00 pm - 1:25 pm**

*Integrating ChatGPT in Cybersecurity Education: Use Cases and Implications*  
Basil Hamdan, Utah Valley University

**1:30 pm - 1:55 pm**

*Generative AI and its Impact on the CS Classroom and Programmers*  
Ed Lindoo, Regis University & Mohamed Lotfy, Utah Valley University

**2:00 pm - 2:25 pm**

*ChatGPT as an Assembly Language Interpreter for Computing Education*  
Zuo, Fei; Tompkins, Cody; Qian, Gang; Rhee, Junghwan; Qu, Xianshan; & Yang, Bokai, University of Central Oklahoma

**2:30 pm - 2:55 pm**

*Break & Poster Session*

**3:00 pm - 3:25 pm**

*Assessing Student Perceptions of Co-Teaching in a 3rd-Year Computer Science Course*  
Abbas Attarwala & Pablo Raigoza, California State University, Chico

**3:30 pm - 3:55 pm**

*A Study of RateMyProfessors in Computing Education in the Rocky Mountain Region*  
Xi Chen & Jingsai Liang, Utah Valley University

**4:00 pm - 4:25 pm**

*AI Tools in Matlab Course Education: Instructor Point of View*  
Rawan Alnsour, Utah Valley University

**4:30 pm - 4:55 pm**

*Break & Poster Session*

**5:00 pm - 5:25 pm**

**Integrating Generative AI in the Coding Classroom: Responsible Use and Impact with CodeGrade**

**Youri Voet, CodeGrade - CCSC Gold Level Partner**

**Abstract:** This session explores the intersection of generative AI, large language models (LLMs), and responsible classroom integration through CodeGrade. Attendees will learn how to empower students to leverage AI tools in coding education while understanding their broader implications. We will demonstrate how CodeGrade's AI Coding Assistant allows teachers to monitor AI interactions within its built-in IDE and combine these with auto-grading for a comprehensive and engaging learning experience. Additionally, this session will review research-based recommendations on phasing AI into the curriculum, starting with AI-restricted assignments, and progressing to specialized tasks that foster hands-on experience with generative AI.

**5:30 pm - 6:00 pm**

**CCSCRM Board Meeting (open to all)**

**7:00 pm**

**Dinner - Sizzler (2105 S Milton Rd, Flagstaff, AZ, (928) 779-3267)**

Note:

All times are Mountain Standard Time



# 33<sup>rd</sup> Annual CCSC Rocky Mountain Conference Program Northern Arizona University

Friday, October 18, 2024  
*Tutorial Sessions*

Location: Learning Resource Center (LRC, building 61), room 106b

**1:00 pm - 2:30 pm Tutorial I**

*Contemporary Vector Database*

Mohammad Amin, Pradip Peter Dey & Bhaskar Raj Sinha, National University

Join Zoom Meeting

<https://nu.zoom.us/j/95788403924>

Meeting ID: 957 8840 3924 (not required)

**3:00 pm - 4:30 pm Tutorial II**

*Performing Enumeration as Part of Penetration Testing Tasks Using Virtual Machines*

Mohamed Lotfy, Utah Valley University

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### Northern Arizona University

Saturday, October 19, 2024  
*Paper Sessions*  
Location: Engineering (69), room 314

**10:00 am - 10:25 am**

*Lawyer Up! Joint Introductory Computer Science and Law Courses*  
Shannon Irene Beck, US Air Force Academy

**10:30 am - 10:55 am**

*Web Software Security Framework - A Cloud- based environment for Full-Stack Development*  
Kevin Pyatt & Ehab Paulos, Regis University

**11:00 am - 11:25 am**

*Replicating a Goal-Congruity Intervention*  
Kathleen Therese Isenegger, University of Illinois Urbana-Champaign

**11:30 am - 11:55 am**

*Break & Poster Session*

**12:00 pm - 1:00 pm**

**Closure Notes & Boxed Lunch**

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## Rocky Mountain Conference Program Northern Arizona University

Saturday, October 19, 2024  
*Tutorial Sessions*  
Location: Engineering (69), room 321

**8:30 am - 10:00 am Tutorial III**

*Getting started with D3, an open-source JavaScript library for creating interactive data visualizations for the web*

Karina Assiter, Landmark College

**10:00 am - 12:00 pm Tutorial IV**

*Using a Distinctive Curricular Design Process for Liberal Arts Computing Programs*

James Teresco, Siena College

**12:00 pm - 1:00 pm**

**Closure Notes & Boxed Lunch**

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## Rocky Mountain Conference Program Northern Arizona University

Friday & Saturday, October 18-19, 2024  
*Poster Sessions*  
Location: Engineering (69), Third Floor Foyer

*Transforming Agriculture with Artificial Intelligence: Implementations and Technologies*

Venkata Abhiram Nelluri & Hanieh Shabaniyan, *Western New England University*

*A Learning Module for Shortest Path Algorithms Using Map-Based Data and Algorithm Visualizations*

James Teresco, *Siena College*