

2025 CAE in Cybersecurity Symposium

CD Track Agenda – Parallel Sessions Only

TUESDAY (April 8, 2025)

For additional Symposium sessions, please see the primary agenda.
Only the primary presenter's name is displayed below. The full list of authors will be included in the conference proceedings.

ROOM:						
Time	Emerald Salon Two	Emerald Salon Three	Blue Topaz	Yellow Topaz	Opal One	Opal Two
Tuesday 4/8/25 3:00-4:00 pm	<p style="text-align: center;">Session Chair: Paul Wagner</p> <p style="text-align: center;">A Clinical Rotation Approach to Professional Cybersecurity Education Dave Nevin Oregon State University (20 minutes)</p> <p style="text-align: center;">Addressing the Critical Need for Experiential Learning within Cybersecurity Education Paul Wagner University of Arizona (20 minutes)</p> <p style="text-align: center;">Bridging the Gap: Leveraging Microsoft Learn to Enhance Hondo Tamez Johnson County Community College (10 minutes)</p>	<p style="text-align: center;">Session Chair: Joel Offenberg</p> <p style="text-align: center;">Agentic Workflows for Cybersecurity Education Tianyu Wang Mercy University (20 minutes)</p> <p style="text-align: center;">Leveraging Local LLMs for Custom Cybersecurity Tool Development: A Hands-on Workshop Vincent Nestler California State University, San Bernardino (20 minutes)</p> <p style="text-align: center;">Generative AI Classroom Exercise: Incident Response Joel Offenberg Howard Community College (10 minutes)</p>	<p style="text-align: center;">Session Chair: Tobi West</p> <p style="text-align: center;">Cybersecurity Curriculum Task Force 2.0 Cara Tang Portland Community College (20 minutes)</p> <p style="text-align: center;">Cyber 1 & 2: Foundations of Cybersecurity CSEC Update Matt Bishop University of California, Davis (20 minutes)</p> <p style="text-align: center;">The Cybersecurity Canon: The Best List of go-to Cybersec Books Julia Armstrong The Ohio State University (10 minutes)</p>	<p style="text-align: center;">Session Chair: Mary Wallingsford</p> <p style="text-align: center;">Growing the Cybersecurity Workforce: Enhancing Career Guidance through Professional Development for Advisors and Counselors Kristine Christensen Moraine Valley Community College, Education Pathway National Center, NCyTE (20 minutes)</p> <p style="text-align: center;">The 3 C's - Engaging and Training Cybersecurity Students Mary Wallingsford Anne Arundel Community College (10 minutes)</p>	<p>No CD Track presentations in this room</p>	<p style="text-align: center;">Session Chair: Jason Hammon</p> <p style="text-align: center;">Addressing Trust and Safety Challenges in Neural Network-Powered Modern AI: A Call for Broader Awareness and Action Gongbo Liang Texas A&M University-San Antonio (20 minutes)</p> <p style="text-align: center;">AI-driven Cyber Defense for Drone Mission Recovery at the Tactical Warfighting Edge Prasad Calyam University of Missouri (20 minutes)</p> <p style="text-align: center;">Pipeline Pressure: The Rising Need for Cybersecurity Educators at CAE Schools Jason Hammon Western Governors University (10 minutes)</p>
Tuesday 4/8/25 4:00-4:30 pm	<p style="text-align: center;">Session Chair: Suzanna Schmeelk</p> <p style="text-align: center;">Educating Offensive AI Model Security Experts: Challenges, Opportunities, and Viable Pipelines Xiuwen Liu Florida State University (20 minutes)</p> <p style="text-align: center;">Graduate Student Cyber Capstone Design: A Real-World Cybersecurity</p>	<p style="text-align: center;">Session Chair: Ayad Barsoum</p> <p style="text-align: center;">Building Cybersecurity Excellence: AI-driven Collaborative Learning and Ethical Reasoning in NCAE Co-Op Centers Randy Hinrichs Norwich University (20 minutes)</p> <p style="text-align: center;">Leveraging AI Tools for Assessment: A Case Study</p>	<p style="text-align: center;">Session Chair: Samah Mansour</p> <p style="text-align: center;">Building Bridges: A Multi-university Cybersecurity Clinic Model for CAE-CD Community Impact Chris Simpson National University (20 minutes)</p> <p style="text-align: center;">Breaking Barriers: A Comprehensive Study on</p>	<p style="text-align: center;">Session Chair: Eman El-Sheikh</p> <p style="text-align: center;">Building an AI-Enabled Future Workforce Eman El-Sheikh University of West Florida (20 minutes)</p> <p style="text-align: center;">LLMs for Mapping KSATs to Job Postings and Predict DCWF Work Roles Ram Dantu University of North Texas</p>	<p>No CD Track presentations in this room</p>	<p style="text-align: center;">Session Chair: Derek Hansen</p> <p style="text-align: center;">Teaching with VAPOR: A Graphic Modeling Language for Cybersecurity Attack Scenarios Derek Hansen Brigham Young University (20 minutes)</p> <p style="text-align: center;">Cyber Sexual Assault: A Growing Challenge in the Digital Age</p>

	Analysis of VPN Mobile Applications Suzanna Schmeelk St. John's University (10 minutes)	in Computer Science Education Ayad Barsoum St. Mary's University (10 minutes)	Challenges Faced by Women in Cybersecurity Samah Mansour Grand Valley State University (10 minutes)	(10 minutes)	Arthur Salmon College of Southern Nevada (10 minutes)
--	---	---	---	--------------	---

WEDNESDAY (April 9, 2025)

ROOM:						
Time	Emerald Salon Two	Emerald Salon Three	Blue Topaz	Yellow Topaz	Opal One	Opal Two
Wednesday 4/9/25 1:00-2:00 pm	<p style="text-align: center;">Session Chair: Anne Kohnke</p> <p style="text-align: center;">Cybersecurity Informed Engineering: An Interdisciplinary Opportunity Sharon Hamilton Norwich University (20 minutes)</p> <p style="text-align: center;">Delivering Cyber Education Content in Browser-Based Virtual Machines (BBVMs) Nicklaus Giacobe The Pennsylvania State University (20 minutes)</p> <p style="text-align: center;">Competition Competencies: Four Key Employability Findings Daniel Manson California State Polytechnic University, Pomona (10 minutes)</p>	<p style="text-align: center;">Session Chair: Greg Gogolin</p> <p style="text-align: center;">Challenges and Opportunities at the Intersection of AI and Cybersecurity Greg Gogolin Ferris State University (20 minutes)</p> <p style="text-align: center;">Cybersecurity Education vs. AI: Designing Labs that Prioritize Thinking Over Tooling Albert Tay Brigham Young University (20 minutes)</p> <p style="text-align: center;">CAE-CD Community Outreach Competition: Four Years of Experience Wei Li Nova Southeastern University (10 minutes)</p>	<p style="text-align: center;">Session Chair: Gretchen Bliss</p> <p style="text-align: center;">Share the Spark: Advancing the Development of New and Early-Career Faculty in Cybersecurity Gretchen Bliss University of Colorado, Colorado Springs (20 minutes)</p> <p style="text-align: center;">Building the Next Generation of Cybersecurity Faculty: The National Community College Cybersecurity Fellowship Program Kristine Christensen Moraine Valley Community College, Education Pathway National Center, NCyTE (20 minutes)</p> <p style="text-align: center;">Enhancing Credit Transfer Efficiency and Accuracy through Knowledge Unit (KU) Mapping Michael Ruth Roosevelt University (10 minutes)</p>	<p style="text-align: center;">Session Chair: Tobi West</p> <p style="text-align: center;">Immersive Cybersecurity Workforce Development Program to Prepare Current and Future Workforce in Critical Infrastructure Tirthankar Ghosh University of New Haven (20 minutes)</p> <p style="text-align: center;">Guiding Your Students To New Heights in Space Cybersecurity Anna Carlin Fullerton College (20 minutes)</p> <p style="text-align: center;">Decrypting Cyber Careers: Helping Students Navigate Career Paths with NICE and DCWF Paige Zaleppa Flores Towson University (10 minutes)</p>	<p style="text-align: center;">Session Chair: Suzanna Schmeelk</p> <p style="text-align: center;">Digital Badging: Celebrating Student Competencies Chip Thornsburg Northeast Lakeview College (20 minutes)</p> <p style="text-align: center;">Empowering Competency Based Lifelong Learning: Digital Wallets Mike Morris Western Governors University (20 minutes)</p> <p style="text-align: center;">Exploring NCAE Cyber Competencies Under ABET Student Outcomes Framework Suzanna Schmeelk St. John's University (10 minutes)</p>	<p style="text-align: center;">Session Chair: Faisal Kaleem</p> <p style="text-align: center;">GPS Spoofing: Challenges, Mitigation Strategies, and Training Through Real Scenarios Laxima Niure Kandel Embry-Riddle Aeronautical University (20 minutes)</p> <p style="text-align: center;">An Effective Approach for Stepping-stone Intrusion Detection Resistant to Intruders' Chaff-Perturbation via Packet Crossover Lixin Wang Columbus State University (20 minutes)</p> <p style="text-align: center;">BRINGING Different Disciplines and Competitions into your Classroom Eric Chan-Tin Loyola University Chicago (10 minutes)</p>
Wednesday 4/9/25 2:00-2:45 pm	<p style="text-align: center;">Session Chair: Lydia Ray</p> <p style="text-align: center;">Designing a Linux-focused Digital Forensics Course for Undergraduate Students Lydia Ray Columbus State University (20 minutes)</p>	<p style="text-align: center;">Session Chair: Stephan Bohacek</p> <p style="text-align: center;">Using Fine-tuned LLMs to Grade Homework Stephan Bohacek University of Delaware (20 minutes)</p> <p style="text-align: center;">Building Cybersecurity AI</p>	<p style="text-align: center;">Session Chair: Mary Wallingsford</p> <p style="text-align: center;">Proposed CAE CoP-CD "Rural CAEs" Initiative Debasis Bhattacharya University of Hawaii Maui College (20 minutes)</p>	<p style="text-align: center;">Session Chair: Anna Carlin</p> <p style="text-align: center;">Experiential Learning Competencies: How Hackathons Intersect Cybersecurity Education Competencies Using Industry Partnerships Christian Servin</p>	<p style="text-align: center;">Session Chair: Jake Mihevc</p> <p style="text-align: center;">Confidence and Competence: The Impact of Participating in Cybersecurity Competitions on Career Development David Zeichick California State University,</p>	<p style="text-align: center;">Session Chair: Holly Yuan</p> <p style="text-align: center;">Navigating Cloud Security and Forensics: Addressing Emerging Threats and Challenges Rebecca Passmore University of Arkansas at Little Rock</p>

	<p>An innovative and immersive Chinese Language Pilot Summer Program for Cybersecurity College Students Waleed Farag Indiana University of Pennsylvania (20 minutes)</p>	<p>Expertise: A Tiered Approach at ECPI University David Breeding ECPI University (20 minutes)</p>	<p>Recruiting Transitioning Veteran and First Responder Students for Cybersecurity Work Roles Mary Wallingsford Anne Arundel Community College (20 minutes)</p>	<p>El Paso Community College (20 minutes)</p> <p>Securing Student Futures: Working with Career Services as a Critical Partner in Cybersecurity Education Caroline Jennings SANS Technology Institute (20 minutes)</p>	<p>Chico (20 minutes)</p> <p>Co-Developing the Pathways Tool within the CAE Cyber Competition Atlas Jake Mihevc Mohawk Valley Community College (20 minutes)</p>	<p>(20 minutes)</p> <p>Machine Learning Applications in Cybersecurity: From Development To Deployment Holly Yuan University of Wisconsin, Stout (20 minutes)</p>
--	---	---	--	--	---	---

Break and Networking 2:45-3:00 pm

ROOM:

Time	Emerald Salon Two	Emerald Salon Three	Blue Topaz	Yellow Topaz	Opal One	Opal Two
<p>Wednesday 4/9/25 3:00-4:00 pm</p>	<p>Session Chair: Mirco Speretta</p> <p>Hacking for Good: Red Teaming as an Experiential Service-Learning Opportunity in Cybersecurity Education Jacob Young Bradley University (20 minutes)</p> <p>Integrating Ethics and Societal Impact into Cybersecurity Education in Online Learning James Tippey Excelsior University (20 minutes)</p> <p>Providing Students with Hands-on Experience in a SOC Environment Mirco Speretta Fairfield University (10 minutes)</p>	<p>Session Chair: Stanley Mierzwa</p> <p>Challenges and Future Path for Valid Research in the Human Factor of Cybersecurity Yair Levy Nova Southeastern University (20 minutes)</p> <p>Evolution of GenAI in the Classroom - Beyond Chatbots and Prompts Debasis Bhattacharya University of Hawaii Maui College (20 minutes)</p> <p>Feasibility of Creating a Non-Profit and Non-Governmental Organization Cybersecurity Incident Reporting and Dataset Repository Using OSINT Stanley Mierzwa Kean University (10 minutes)</p>	<p>Session Chair: Tobi West</p> <p>NCTA's role in Credentialing High School Teachers to Expand Availability and Access to High School Cybersecurity Courses Sandra Leiterman University Arkansas Little Rock (20 minutes)</p> <p>CyberLearn: A Collaborative Model for Sustainable Workforce Development Sandra Leiterman University Arkansas Little Rock (20 minutes)</p> <p>STORM Cybersecurity Career Development Program at Coastline College Tobi West Coastline College (10 minutes)</p>	<p>Session Chair: Anne Kohnke</p> <p>A Transdisciplinary Approach to Maritime Transportation System Cybersecurity Education, and Capability Development Ulku Clark University of North Carolina Wilmington (20 minutes)</p> <p>Building Effective Cybersecurity Pipelines: Strategies and Best Practices Rachel Meyers Purdue University Northwest (20 minutes)</p> <p>Securing Air-Gapped Industrial Control Systems: Mitigating Wireless Threats through Proactive Defense Strategies Ulku Clark University of North Carolina Wilmington (10 minutes)</p>	<p>Session Chair: Paul Wagner</p> <p>Expanding the K-12 Cybersecurity Teacher Pathway Robert Honomichl University of Arizona (20 minutes)</p> <p>Central Illinois High School Cyber Defense Competition Dmitry Zhdanov Illinois State University (20 minutes)</p> <p>Cybersecurity Hacking Attack Gaming William Glisson Louisiana Tech University (10 minutes)</p>	<p>Session Chair: Eman El-Sheikh</p> <p>Homomorphic Encryption and Statistical Confidentiality Yesem Kurt Peker Columbus State University (20 minutes)</p> <p>On Teaching and Learning Industrial Control Systems Security Using Open Platform Infrastructure (OPI) Guillermo Francia University of West Florida (20 minutes)</p>

<p>Wednesday 4/9/25 4:00-5:00 pm</p>	<p>Session Chair: Bill Gardner</p> <p>Changing Undergraduate Cybersecurity Instruction Mathew Heath Van Horn Embry-Riddle Aeronautical University, Prescott (20 minutes)</p> <p>Computer Squad Detectives: A Digital Forensics Case Exemplifying Social Justice Denise Dragos St. John's University (20 minutes)</p> <p>Addressing the Cybersecurity Skills Gap by Leveraging Neurodiverse People Bill Gardner Marshall University (10 minutes)</p>	<p>Session Chair: Paige Zaleppa Flores</p> <p>Teaching Automobile Hacking with the Instrument Cluster Simulator Jim Marquardson Northern Michigan University (20 minutes)</p> <p>Generative Artificial Intelligence (AI) in Knowledge Discovery and Generation for Cyber Defense Ping Wang Robert Morris University (20 minutes)</p>	<p>Session Chair: Tobi West</p> <p>Northern Michigan University's Cybersecurity Collaboration with the DOD's Exercise Northern Strike Michael Sauer Northern Michigan University (20 minutes)</p> <p>Partnering for Cybersecurity: A Community College's Journey to Become a State DHS-Backed Regional SOC Rachelle Hall Glendale Community College (20 minutes)</p> <p>2025 Cybersecurity Alumni Workforce Study: Where Are They Now? Tobi West Coastline College (10 minutes)</p>	<p>Session Chair: Jason Mitchell</p> <p>A Dynamic Learning Object Framework for Quantum Security Workforce Development Abhishek Parakh Kennesaw State University (20 minutes)</p> <p>Partnerships in Action: A Collaborative Approach to Launching Community College Students into Cyber Careers Kim Kafka SANS Technology Institute (20 minutes)</p> <p>Practicum Projects in Cybersecurity Education Jason Mitchell Lansing Community College (10 minutes)</p>	<p>Session Chair: Ram Dantu</p> <p>Infusing Cybersecurity Across Any Discipline Denise Kinsey-Bergstrom Franklin University (20 minutes)</p> <p>Addressing Critical Cybersecurity Instructors and Workforce Shortage Ram Dantu University of North Texas (20 minutes)</p>	<p>Session Chair: Akhtar Lodgher</p> <p>Practical Cybersecurity Toolkit Using Python Akhtar Lodgher Texas A&M University, San Antonio (20 minutes)</p> <p>Detecting Vulnerabilities in PHP-Based Web Programs Using Graph Models Junjie Zhang Wright State University (20 minutes)</p> <p>Stepping-Stone Intrusion Upstream Detection by Exploring the Distribution of Network Traffic Jianhua Yang Columbus State University (20 minutes)</p>
---	---	---	---	--	--	--

**CD Track Poster Session (Unattended)
Tuesday (April 8, 2025)**

	<p>A Strategic Approach to Harden Network Security Using the NIST Framework for Small Technical Skilling Organization <i>Nova Southeastern University</i> Sarith Chandra Reddy Chowtukuri Yair Levy</p>	<p>Advancing Cybersecurity Education in Collaboration With Industry <i>Cypress College</i> Behzad Izadi Rassoul Alizadeh Noah Terpening</p>	<p>Advancing IT Accessibility, Enrollment, and Workforce Readiness through Hybrid Education Models <i>Laramie County Community College</i> Daniel McIntosh Troy Amick</p>	<p>Auburn University's Ethical Hacking Club <i>Auburn University</i> Farah Kandah Luke Robinson</p>	<p>Defending Backdoor Attacks in Real-time Image Recognition Systems Using Morphological Filter <i>California State University, Sacramento</i> Bashar Allwza Syed Badruddoja <i>University of North Texas</i> Ram Dantu</p>	<p>Implementing Information Security Policies and Compliance Plan to Mitigate the Risks Posed by Remote Work at a small Law Firm <i>Nova Southeastern University</i> Alex Corral Jomariel Castillo Yair Levy</p>
	<p>INDRA: A Drone Penetration Testing Platform for Cybersecurity Education <i>West Virginia University</i> Thomas Devine Dylan Cunningham Thomas Hasselman Anthony Hudson Alexander Roland Justin Scott Grant Thompson Logan Yokum Peter Zekonis</p>	<p>Internet of Drone Things (IoDT) Simulation for Resiliency through Large Language Models (LLMs) <i>University of North Texas</i> Cihan Tunc Fatima Shibli</p>	<p>Jericho: A Cyber City for Enhancing Cyber Operations Education <i>Cedarville University</i> David Reid Kaicheng Ye Jacob Grady Logan Miller Seth Hamman</p>	<p>Leveraging DevSecOps Tools To Hit The Top 10 in Cyber Competitions <i>The Pennsylvania State University</i> Brendan McShane Nicklaus Giacobe Dongwon Lee</p>	<p>Micro-Transcript Generation Using Detailed Knowledge Units for Workforce Readiness <i>University of North Texas</i> Fatima Shibli Cihan Tunc Ram Dantu Alexis Blackwell Thomas Trebat</p>	<p>NCAE Cyber Games: Technology and Methodology <i>Mohawk Valley Community College</i> Nick Doerner Jake Mihevc</p>
	<p>Randomizing Forger Selection to Improve Decentralization in Proof of Stake Consensus Protocol <i>California State University, Sacramento</i> Sasi Kanduri Syed Badruddoja <i>University of North Texas</i> Ram Dantu</p>	<p>Smart Contract Vulnerability Detection Using AST-Transformer <i>California State University, Sacramento</i> Harshith Sai Veeraiah Syed Badruddoja <i>University of North Texas</i> Ram Dantu</p>	<p>Transitioning from Survey-Based Risk Assessment to Risk Intelligence Model for Maritime Cybersecurity <i>University of North Carolina Wilmington</i> Bilge Karabacak Ulku Clark Hosam Alamlah</p>	<p>US Coast Guard Academy (USCGA) eCTF 2025 <i>US Coast Guard Academy</i> Joshua West Dominic Gilbert Wyatt Duthu Juan Garcia Mohamed Elwakil</p>	<p>Welcome to WannaCry: A Case Study and Model for Cybersecurity Education <i>West Virginia University</i> Creek Richmond Thomas Devine</p>	