## CAE in Cybersecurity Symposium

November 21st-22nd, 2019 Sheraton Grand Phoenix Phoenix, AZ



### **Tony Coulson**



CAE in Cybersecurity
Community - CAE
National Resource
Center (CNRC)



### Welcome to the Symposium!



Each year the CAE in Cybersecurity Community gathers to talk about changes in the program, receive updates from the community, network with other members, and listen to pressing issues in the community. This year, we've invited the CAE-C Program Office, NIST/NICE, and NSF to talk about programs of importance to our community.

#### **Our Sponsors**









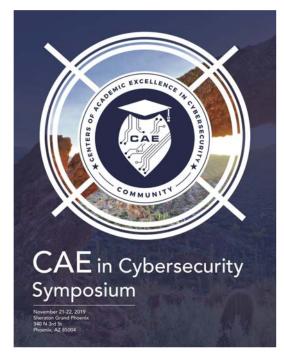
Special thank you to the National Initiative for Cybersecurity
Education, the National Security
Agency, and the National
Cybersecurity Training &
Education Center for sponsoring this event!

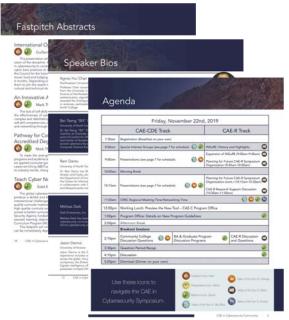
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### Symposium Program Book







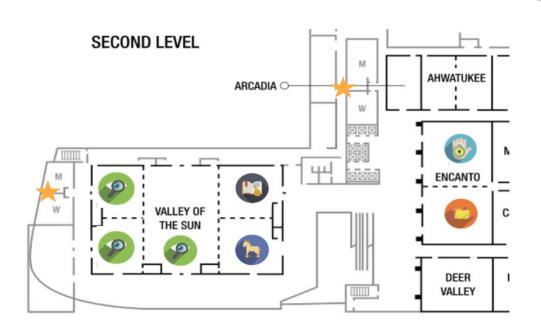
Use the icons to help you navigate the symposium

You can attend one of two tracks: CAE-CDE and CAE-R

Program book layout follows the agenda

### Symposium Map







Use the icons to help you navigate to the appropriate room.

Room agendas are posted outside each room (with exception to Valley of the Sun E, but it is marked with an icon).

#### Carroll Parker





National Security
Agency, Chief, Center
for Education,
Innovation, and
Outreach



#### Diane Janosek







Commandant of the National Cryptologic School at the National Security Agency



#### The Cyber Security Hub™

424,983 followers

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## If you feel your setup is too slow









## Lynne Clark





Deputy Chief of the Center for Education, Innovation, and Outreach in NSA's National Cryptologic School



#### **Executive Leadership Panel**





Paul J. Maurer, Ph.d President Montreat College



Lawrence Rose
Dean, JHBC
California State
University, San
Bernardino



Dr. Ryan Carstens
President
ENMU – Ruidoso
Branch Community
College



Randy VanWagoner
President
Mohawk Valley
Community College

## CAE National Resource Center Panel





Tony Coulson
CAE CNRC - CAE
Community



Corrinne Sande
CAE CNRC Candidates
Program



Art Conklin
CAE CNRC - KU
Development



Margaret Leary
CAE CNRC - Peer
Review

#### **National Science Foundation**



Corby Hovis, Division of Undergraduate Education Program Director and Li Yang, Division of Graduate Education Program Director



#### Rodney Petersen





Director of the National Initiative for Cybersecurity Education (NICE)



# CAE in Cybersecurity Community Website





Anastacia Webster,
CAE in Cybersecurity
Community Program
Manager

#### Overview/Stats









The CAE in Cybersecurity's mission for the community is to provide designated engages with or institutions with resources to aid in individual to provide edux w.caecommunity.org/content/what-is-a-cae-porkshops, marketing opportunities f

The CAE in Cybersecurity Community actively engages with our government representatives to provide educational workshops, services, opportunities for funding, conferences, and



#### INDUSTRY

The CAE in Cybersecurity Community looks to work hand in hand with the industry by providing superlative individuals and institutions to employers in exchange for

- Users: 1,291
- Weekly Newsletter
   Subscribers: 1,102
- Weekly Newsletter: 20-25%
- Most popular content:
  - Faculty Jobs
  - CAE Forum/Tech Talk
  - CAE Institution Map

#### **New Additions**



- CAE-C Program Office Pages
- Improved CAE-C Map
- Calendar > Events
- CAE Tech Talk



#### **Upcoming Additions**



CAE in Cybersecurity Community About Us

Frequently Asked Questions

Newsletter/Marketing



Commenty Survey 1 Survey 2019

#### **Reworking Content**



CNRC - CAE COMMUNITY

Home / CNRC - CAE Community



By the community,

ATECENTRAL

Home / Resources / Affiliated Resources

urchive

The Centers of Academic Excellence (CAE) in Cybersecurity Comidesignated institutions for CAE designated institutions through w CAEs and applicants. Our community works with other CAE Nation web development, graphics/marketing materials, logistical support works with the program office to provide members with access to a quarterly newsletter.

#### ATE Center Resource - https://atecentral.net/

Absenced Technological Education (ATE) program that provides materials and services dedicated to developing and implement ideas to insprise the skills of sechnicises and the educators who taken them for en charge. ATE Central is primarily based at two-year colleges with a focus on helping educators, students, and the general public issum about all that the Advanced Technological Educations program offers. ATE Central is funded by the National Science Foundation.

DyberWatch West Website - http://www.cyberwatchwest.org/

OyberWatch Website - http://www.nationalcyberwatch.org CSSIA website - http://www.cssia.org/

#### SYMPOSIUM PRESENTATION ARCHIVE

Symposium Presentation Archive

#### 5 Pr

#### ConCuber - https://www.nee.cober.com/

Each year the CAE in Cybersecurity Community ga general session presentations. Below, you will find

The Gen Cyber program works to increase interest in cybersecurity careers and diversity in the cybersecurity workforce, help all students understand correct and safe online. behavior, and improve teaching methods for delivery of cybersecurity contine to K-72 students. This program provides cybersecurity summer camp experiences for students and teaches for on others. Funding for this program is provided by the National Security, Approxy and the National Security Approx and the National Sec

If you have any problems accessing content or questions, please contact into@caecommunity.org

2018 CAE in Cybersecurity Symposium

2017 CAE in Cybersecurity Symposium

**Affiliated Resources** 

**Regional Center Listings** 

Symposium Presentation Archive

### **Planned Survey**



- January 1, 2020 January 31, 2020
- Mailing list only
- Types of survey questions
  - Useage
  - Content
  - Updates
  - Communication

#### It's all on NICCS™

## The Nation's One-stop-shop for Cybersecurity Careers and Studies!

#### Students, Launch Your Cyber Career

Do you want to work with the latest technology? Do you like solving problems with creative solutions? Would you like to turn those interests into a lucrative career with opportunities for growth?



Almost everything we do connects to the internet in some way, but our line of defense against possible cyber threats is limited due to a lack of cybersecurity professionals. Do you have what it takes to combat cybercrime?

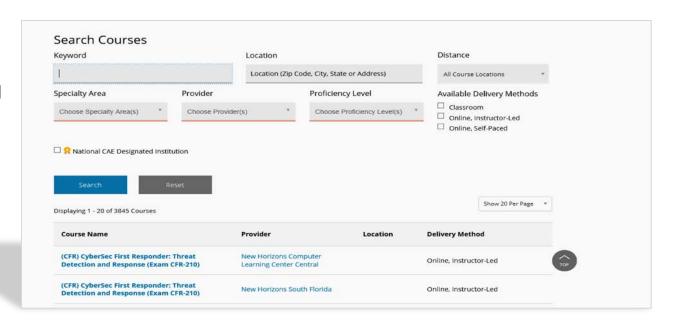
Cybersecurity is the practice of protecting networks, systems, programs, and data from criminal or unauthorized use.

30,000+ visitors per month
3,000+ cybersecurity training and education
courses available across the nation and online

100+ links to cybersecurity resources15 cybersecurity career path profiles40+ Feature Articles

#### **NICCS Training Catalog**

The NICCS Education and Training Catalog is a central location to find over 3,000 cybersecurity-related courses across the country and online.



Visit: <a href="https://niccs.us-cert.gov/training/search">https://niccs.us-cert.gov/training/search</a>

#### **CAE Virtual Career Fair**



Amy Hysell, CAE in Cybersecurity
Community















Centers of Academic Excellence

# Cybersecurity **VIRTUAL**

#### Career Fair

Sponsored by CyberWatch West and the National Science Foundation

September 27, 2019 // 9AM-1PM PT

















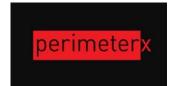








National Cybersecurity Training & Education Center

























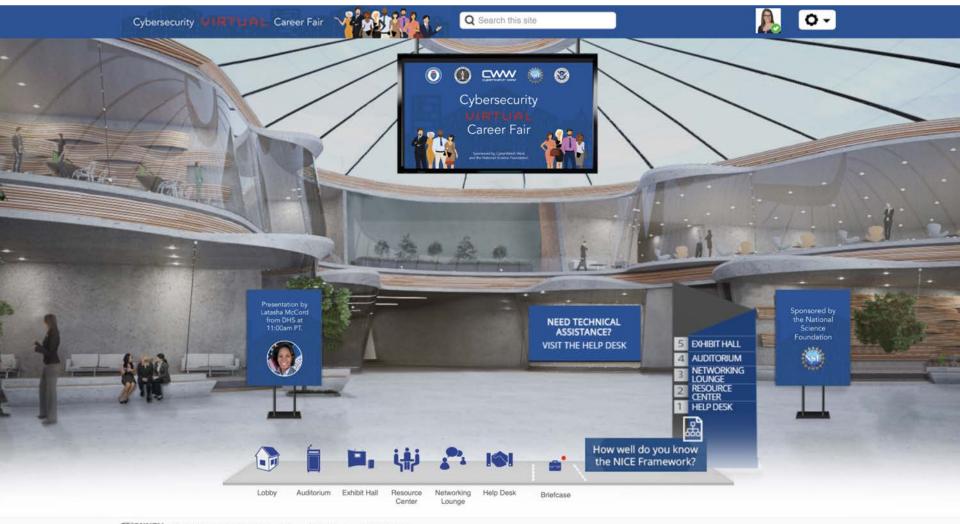




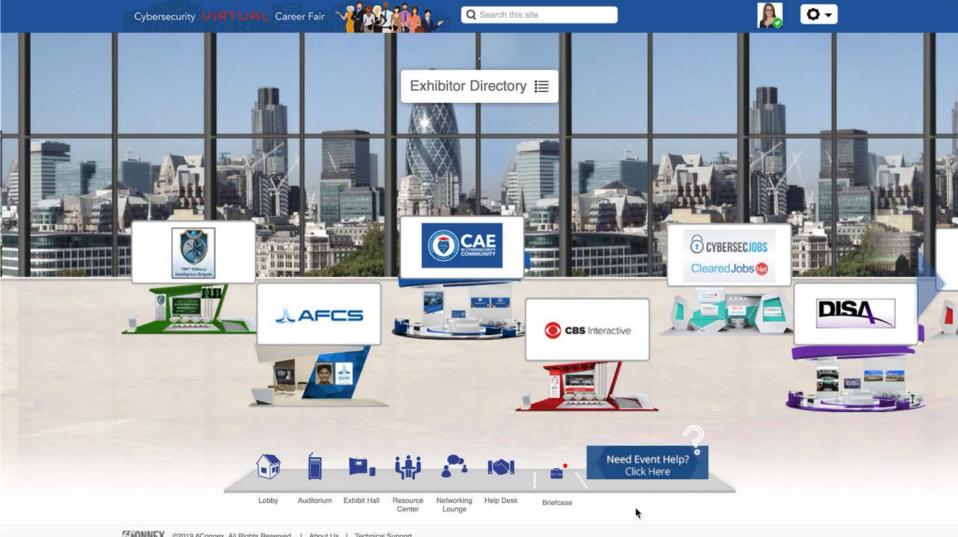
## EWIC EXCELLENCE

Over 800 students attended and spent an average of 4 hours in the career fair environment, visiting 24 booth sponsors representing government, industry, and academia.

COMMUNITY







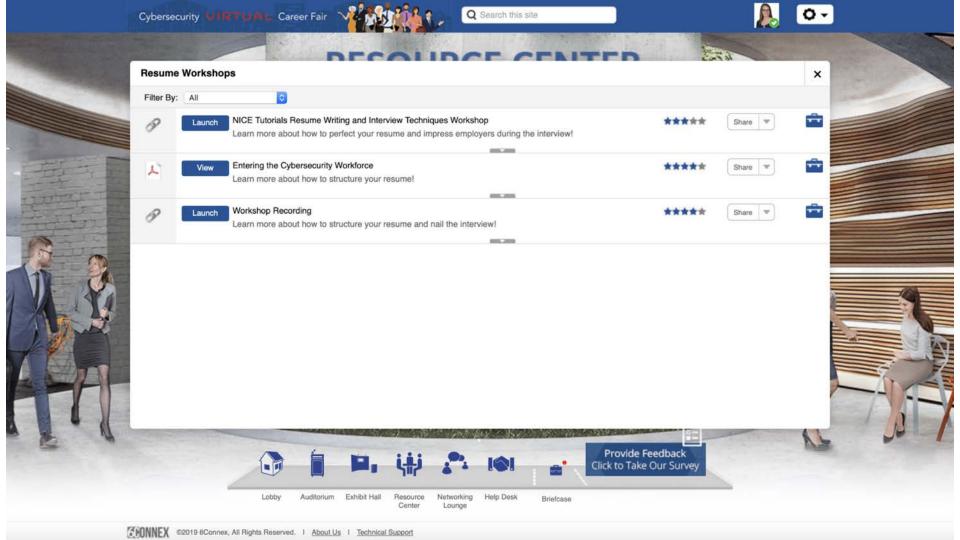












#### Institutions with the highest student participation

- Utica College 48
- California State University, San Bernardino 36
- Indiana University of Pennsylvania 32
- Houston Community College 19
- Trident Technical College 19



Cybersecurity workers protect our most important and private information, from bank accounts to sensitive military communications. However, there is a dangerous shortage of cybersecurity workers in the United States that puts our digital privacy and infrastructure at risk.

From October 2018 through September 2019, there were 270,000 openings for Information Security Analysts, but only 112,000 workers currently employed in those positions – an annual talent shortfall of 158,000 workers for cybersecurity's largest job.

There are 235,000 additional openings requesting cybersecurity-related skills, and employers are struggling to find workers who possess them. As a result, the average cybersecurity role takes 20% longer to fill than other IT jobs.

Source: Cyberseek.org, November 2019

### Save the date!

CAE in Cybersecurity
Virtual Career Fair

September 4, 2020









#### Community Spotlight



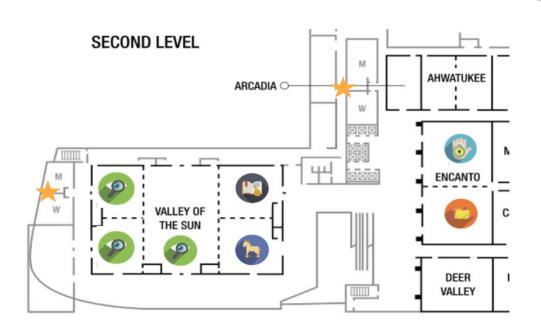


Paul Wagner and Jason Denno, University of Arizona

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#### Symposium Map







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# 2020 Critical Community Actions and Initiatives



Lynne Clark, Deputy Chief of the Center for Education, Innovation, and Outreach in NSA's National Cryptologic School



#### Vincent Nestler Ph.D.



California State University, San Bernardino

NICE Challenge Project Pl





#### Fastpitch Sessions



Each year we ask members of the CAE in Cybersecurity Community to present their research, projects, or meetings that are of interest to the community. This year we have six Fastpitch speakers and a wide range of topics.

Fastpitch Schedule			
Thursday, November 21			
3:00pm-3:10pm	Community College Cyber Pilot (C3P) Program		9
3:10pm-3:20pm	International Opportunities for Cybersecurity Faculty	<b>(2)</b>	9
3:20pm-3:30pm	An Innovative Approach Using Mixed Reality to Improving Career Readiness		6
3:30pm-3:40pm	Pathway for Community College Students to an ABET-Accredited Degree in Cybersecurity	<b>(3)</b>	9
3:40pm-3:50pm	Teach Cyber Now: Ask Me How		6
3:50pm-4:00pm	ACM Cybersecurity Curriculum Guidelines Mapping to CAE Knowledge Units	<b>(3)</b>	8



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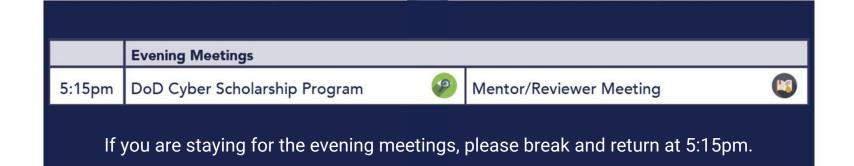


# If we had \$45 million, what would the government get?



#### **Additional Meetings**





## CAE-Cybersecurity Designated Institutions and Resource Centers

This map includes 312 institutions designated as CAE-Cyber Defense and Research programs.



