

# #WiCySv20

Live... from Everywhere

April 15th - 17th, 2020



# #WiCySv20 Summit

## Openings

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Wednesday, April 15th 11:00am - NOON (CDT) Thursday, April 16th NOON - 12:55pm (CDT)

### Opening Remarks

Dr. Ambareen Siraj, *WiCyS Founder*

11:00 am - 11:05 am

### 10-minute Keynote

Jennifer Buckner, *Mastercard*

11:05 am - 11:15 am

### "My WiCyS Story"

Corrin Woodard, *Security Risk Advisors*

Deborah K. Kariuki, *University of Maryland Baltimore County*

Elizabeth Rasnick, *Georgia Southern University*

Jennifer Breese, *Penn State Greater Allegheny*

Khadija Nurul Hasan, *Easterseals Southern California*

Natesha Harned, *Viasat, Inc.*

11:20 am - NOON

### Opening Remarks

Lynn Dohm, *WiCyS Executive Director*

NOON - 12:05 pm

### 10-minute Keynote

Hart Rossman, *Amazon*

12:05 pm - 12:15 pm

### Power, Influence and the Art of Female Leadership

Gretchen Block, *Optum*

12:15 pm - 12:45 pm

### 10-minute Keynote

Ruchi Shah, *Google*

12:45 pm - 12:55 pm

Friday, April 17th 10:00am - 10:50am

### Opening Remarks

Dr. Janell Straach, *WiCyS Chair of the Board*

10:00 am - 10:15 am

### Seize the Moment!

Diane M Janosek, *Commandant, NSA's National Cryptologic School*

10:25 am - 10:50 am

### 10-minute Keynote

Barbara Mueller, *Raytheon*

10:15 am - 10:25 am

\* Continuing Professional Education (CPE) credits available based on participants session attendance AND completion of the WiCySv20 evaluation form.



# #WiCySv20

## Sessions

Wednesday, April 15th NOON - 1:00pm (CDT)

### Security Research at the Speed of News\*

Diane Kelley, *Microsoft* and Limor Kessem, *IBM*

**PRESENTATION | TRACK: CAREER DEVELOPMENT**

Ever watch a news anchor present the latest vulnerability or fast-moving malware and wonder how that story went from research to headline? The behind-the-scenes reality is probably more complicated than you imagine and includes responsible disclosure activities, legal edits, peer and subject matter expert reviews, and keeping the PR/ marketing machines tuned to technical truth. In this talk, we'll go over the various moving parts of the research publication process and cover the framework that we developed with our colleagues to ensure the research word got out as quickly, effectively and responsibly as possible. We will share what worked, what didn't, and deliver practical advice on how to set up the process, deal with fast and slow research cycles, manage researcher expectations, handle issues with plagiarism, work with legal reviewers, and determine the best channels for amplifying the message to keep research publication gears smooth. Learn how to build a security research publication process from those who built and managed a program at one of the largest security companies in the world.

### Seat at the Table: Security Leadership Through Tabletop Exercises\*

Gina Yacone, *Agio*

**WORKSHOP | TRACK: BEST PRACTICES**

Imagine that your organization is infected with ransomware. What do you do? From a critical breach to a minor incident, your organization's success lies in the speed of detection, effectiveness in containment and accuracy of remediation. As an IT and security professional, you are on the front line. How should you prepare? Tabletop exercises are an effective mechanism to shape, enhance and test the awareness of decision makers while the gamification of the exercise yields a higher level of engagement of participants.

### Using the DETER Cybersecurity Testbed for Research and Education\*

Jelena Mirkovic, *Information Sciences Institute at University of Southern California*

**WORKSHOP | TRACK: BEST PRACTICES**

The DETER Cybersecurity Testbed provides an advanced outlet where leading researchers and academics conduct critical cybersecurity experimentation and educational exercises. DeterLab emulates real-world complexity and scale necessary to evolve next generation solutions to help protect against sophisticated cyber attacks and network design vulnerabilities. Created under the DETER project in 2003 with joint National Science Foundation and Department of Homeland Security funding, DETERLab has grown to 700 nodes, located at USC/ISI and UC Berkeley. The testbed runs on the enhanced Emulab technology and provides infrastructure, methodologies and tools for cybersecurity experimentation. The testbed is accessible for free to any researcher or educator around the world. This workshop will introduce the DETER Testbed and provide an overview of the tools, technologies and research supported. We will describe how to get access to the testbed and steps to start using it.

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## Sessions

Wednesday 1:00pm - 2:00pm (CDT)

### Exploiting Your Digital Footprint\*

Addy Moran and Vidya Murthy, *Raytheon*

PRESENTATION | TRACK: CURRENT TECHNOLOGY AND CHALLENGES

Basic reconnaissance involves tracking someone's internet presence. Everyone on the internet leaves a footprint, whether it's past websites affiliated with you, past schools you attended, social media accounts or even homes you've owned. Businesses and individuals are investing more time, money and resources into cybersecurity. Managing publicly-available information can be difficult. For an organization, it may be common to have employees register domains for different projects or have a business subsidiary and their corresponding domains. However, it also is possible to have employees use work emails for registering personal websites or having false positives such as companies with similar or nested names. Individually, social media helps keep friends and family in the loop, but also is easy for an attacker to maliciously use this information. Automation allows us an easier way to crawl the internet and see where your information lies. In this presentation, we will discuss information publicly available for both businesses and individuals as well as how an attacker could exploit this information.

### Document Yourself: A Framework for Career Advancement\*

Michelle Brenner, *Netflix*

WORKSHOP | TRACK: CAREER DEVELOPMENT

The goal of this workshop is to document yourself the way you would document code. You wouldn't expect someone who wants to use the program you built to read every line of code. Instead, they're relying on the design documents and doc strings to know how it works. The same is true with your career. This workshop is about making it easy for you to provide overwhelming evidence of your value to the company. When you can show your return on investment, it's much easier to secure that promotion, raise or new job you deserve. This workshop consists of three parts: Writing your daily accomplishments in the form of success statements; putting them together into a brag sheet; and using them to create your elevator pitch. Using this framework makes it easy to make a habit of documenting, the same way a style guide helps you document your code. You will walk out of the workshop with confidence and a plan to take your next step.

### The Cyber Shuffle: Educational Card Games and Other Unplugged Activities\*

Tania Williams, *University of Alabama in Huntsville*

WORKSHOP | TRACK: BEST PRACTICES

Come by and let us deal you in! This session features hands-on, unplugged card games to teach cybersecurity terms and concepts. CyberOne is based on the popular game UNO, where players defend their hands with patches and firewalls (instead of wild and reverse cards) while trying to rid their hands of malware. Want to deepen the player's understanding? Players can take the same deck to use as flashcards or for a game of Go Phish. Participants also can sample a game of Cyber Concentration. This game asks players to match Base 10 numerals to their Base 2 equivalent, teaching players the binary numeral system and sharpening their math skills. This session will showcase cybersecurity related board games, such as Cyber Life, and walk participants through the game creation process. Participants will learn how the games are used in camp and outreach settings and receive a link to PDF game files.

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## Sessions

Wednesday, April 15th 2:00pm - 3:00pm (CDT)

### Underrepresented Women in Cybersecurity

**Laura Malave**, *St. Petersburg College*

**BIRDS OF A FEATHER | TRACK: BEST PRACTICES**

This Birds-of-a-Feather session will discuss the status of underrepresented women in cybersecurity: Those self-identifying as black/African American, Hispanic/ Latina, Native American, Native Hawaiian, Pacific Islander and Asian. They face many challenges in the workplace, including lack of representation in management roles, salary gap and conscious and unconscious discrimination. We will brainstorm and discuss how to increase, recruit, promote and nurture the number of underrepresented women pursuing academic degrees and cybersecurity careers. We also will discuss best practices and challenges in retaining underrepresented women in academic degree programs and careers as well as available resources for supporting underrepresented women in cybersecurity.

### Poster Session\*

**Moderator: Chutima Boonthum-Denecke**, *Hampton University*

**Shilpa Bhandari** - Intrusion in Wireless Networks Detection Using Machine Learning Average

**Deepti Gupta** - Learner's Dilemma: IoT Device Training Strategies in Collaborative Deep Learning Average

**Edden Kashi** - Did I Agree to This? Silent Tracking Through Beacons Average

**Nhu Ly** - Intrusion detection for wireless medical devices using generative adversarial network Average

**Janelle Mason** - A Computational Framework for Identity using Semantic Web Resources, Dempster Shafer Theory and Argumentation Schemes Average

**Jasmine Washington** - Cybersecurity Education: A Closer Look under the Theory of Reasoned Actions and Theory of Planned Behavior Average

**Daniela Zieba** - Improving Incident Response and Security through Network Analysis Tools Average

The poster session provides opportunities for students to present their research work for the audience of WiCyS. This year, each student was asked to create a 3-minute video of their presentation for the judging process. The top winners are presenting their work during this live session! The top winners of our poster session will present their research work for the audience of WiCyS. This year, each student was asked to create a 3-minute video of their presentation for the judging process. The top winners are presenting their work during this live session!

### Enabling Veterans to Find Paths to Cyber Careers\*

**Moderator: Dr Amelia Estwick**, *National Cybersecurity Institute, Excelsior College*

**Panelists: Diane Delaney**, *IBM*, **Carolyn Renick**, *DoL*, **Ambareen Siraj**, *WiCyS*, and **Alice Smitley**, *NSA*

**PANEL | TRACK: CAREER DEVELOPMENT**

In this panel, several public and private sector organizations will discuss opportunities and resources for veterans who are seeking career opportunities in cybersecurity.

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## Lightning Talks\*

Wednesday, April 15th 3:00pm - 4:00pm (CDT) (5-minutes each)

### Army Civilian Career Programs in Cyber

**Andricka Atkins**, *US Army, ARCYBER*

**TRACK: CAREER DEVELOPMENT**

The Army is dedicated to the training, education and professional development of its cyber workforce. Army Career Programs for Information Technology and CP 71 exist to raise awareness, encourage and develop the cyber expertise among the Army cyber civilian workforce. This talk will address such opportunities for civilians.

### An Analysis of Data Collection by K-12 Educational Technology

**Katie Shuck**, *Dakota State University*

**TRACK: CURRENT TECHNOLOGY AND CHALLENGES**

The use of technological devices, software and applications has increased dramatically in recent years, especially in the K-12 classroom. Integrated technology has proven to be an effective and engaging tool for multidisciplinary learning environments. Yet, the data being collected through these technology resources is often excessive, potentially violating current laws and disregarding students' rights to reasonable privacy. Katie Shuck's research project analyzes the Terms of Service and privacy policies of technology resources used in these classrooms in order to quantify and classify data being collected. By understanding the data collected through these resources, we can work to improve privacy best practices and educational technology so it protects student data.

### Building the Next Generation of Cyber Leaders

**Margot Conrad**, *Partnership for Public Service*

**TRACK: CAREER DEVELOPMENT**

The nonpartisan, nonprofit Partnership for Public Service has teamed up with Mastercard, Microsoft, Workday and 12 federal agencies to launch the Cybersecurity Talent Initiative, a unique cross-sector opportunity for students in cyber-related fields, including computer science, engineering, information science and mathematics. Students will have a chance to work in the federal government for two years and then be invited to apply for a position with one of the corporate partners. In this session, we hope to inspire more young women to continue pursuing cybersecurity-related fields and educate them about the innovative opportunities in the public and private sectors they would be eligible for through this program. Participants will learn about the innovative work the federal government is doing to protect the systems and citizens of the United States. Our distinguished speakers will provide feedback regarding career paths, ways to success and networking advice.

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## Lightning Talks\*

Wednesday, April 15th 3:00pm - 4:00pm (CDT) (5-minutes each)

### Dwelling in the Dark Web

Susan Jeziorowski, *Tennessee Tech University*

**TRACK: CURRENT TECHNOLOGY AND CHALLENGES**

Anonymity tools have grown increasingly popular among web users in response to regular government surveillance, internet censorship and capitalistic data collection, among other reasons. Such tools promote web user privacy but also provide an avenue for cyber criminals to conduct illegal activities on the dark web without fear of consequences. In this presentation, attendees will discover what the dark web is, how it's accessed, and what it's used for. Attendees will learn about the criminal activity enabled by the dark web and the challenges cyber investigators face when dealing with anonymous networks. The presentation will conclude with a discussion of current dark web research, resources and best practices.

### Enhancing Cybersecurity Workplace Cultures with Cognitive Diversity

Tylisia Crews, *Virginia Cyber Range / U.S. Cyber Range*

**TRACK: BEST PRACTICES**

The significance of a diverse work team has remained unchanged. However, the scope of what diversity truly encompasses has shifted. Traditionally, building a team of hard-working employees with differences in gender, culture, race, creed, religion, sexual orientation and political beliefs was a major goal. Recent studies of diversity challenged what was traditionally considered "diverse." These discoveries led to a new term, cognitive diversity, which represents the inclusion of people with different ways of thinking, viewpoints and skillsets in a team. Cognitive diversity cultivates a more inclusive and collaborative open space, where people feel empowered to create and implement ideas. The power of having this in the workplace is the same power that companies seek in future leaders. The findings of cognitive diversity research will provide endless opportunities to form strategic approaches to hiring practices in cybersecurity. Exploring this will show how expanding the traditional perspective of diversity includes variances in perspectives, knowledge bases and opinions to help solve difficult problems.

### Hacking Banks, Elections and Your Future: The National Collegiate Pentesting Competition

Tom Kopchak, Heather Ricciuto, and Meredith Kasper, *National CPTC / Hurricane Labs & IBM*

**TRACK: CAREER DEVELOPMENT**

Do you think you might want to be a pentester some day? Consider participating in the National Collegiate Penetration Testing Competition (CPTC). The CPTC provides college students (like you!) with realistic challenges to prepare for a career in the security assessment field. The competition is designed to mimic a real-world organization while requiring you to excel in both technical and communication skills. We provide a unique environment to prepare you to navigate the technical and administrative challenges you will likely face in your career. CPTC gives you the opportunity to hone on-demand technical and non-technical skills in a realistic environment before you enter the workforce. This talk will introduce you to the CPTC competition director (Tom Kopchak), a former competitor turned volunteer (Meredith Kasper), and one of our industry supporters (Heather Ricciuto), all of whom work together to make this competition happen.

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## Lightning Talks\*

Wednesday, April 15th 3:00pm - 4:00pm (CDT) (5-minutes each)

### Just Because We Can Doesn't Mean We Should: Will Saying No to Apps Force Developers to Change?

**Kathleen Hyde**, *Champion College Online*

**TRACK: BEST PRACTICES**

Are you the type of person who reads license agreements before clicking the "Accept" button? Do you regularly check the permissions on the apps that you download, install and use? If more consumers opted not to use popular Android apps where developers request unnecessary access to device features and data, would that change the industry and how it views data as a commodity? Should the distinction be whether an app is free or paid? Let's have a conversation about how consumers can effect change and whether all data should be monetized.

### K-12 Goes Cyber

**Ruthe Farmer**, *CSforALL*

**TRACK: BEST PRACTICES**

This talk will provide a snapshot of the current state of cybersecurity education for K-12 youth, with a specific lens on opportunities for girls and young women and highlight high-impact programs and opportunities for students, faculty and professionals to support and engage.

### Lab Blogging: Transforming Lab Instructions into Student Portfolios

**Rita Mitra**, *University of Texas at San Antonio*

**TRACK: BEST PRACTICES**

In this session, we will discuss how to address two issues in cybersecurity lab-based education: How can instructors maintain up-to-date documentation on tools, commands and event analysis? How can students learn the art of documentation and report writing? The nature of cybersecurity is one of constant updates. The typical approach is to search the internet for a blog or forum where the issue has been raised and try proposed solutions until one works, and then move on. We run into this dilemma in undergraduate education. Instructors want to create current and relevant labs for students to hone their analytical skills but avoid reinventing the wheel by linking to documentation online. Students frequently need to troubleshoot outdated assignment instructions and may not describe the issues in lab reports. We found that when students are asked to follow a set of lab instructions and detail and reflect on their process in an introspective manner, they often report in depth on issues they encountered. We asked students to write up a walk-through of our lab instructions in the style of a well-crafted blog or forum post. "Lab blogging" appears to result in better course quality and improved writing and analytical skills.

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## Lightning Talks\*

Wednesday, April 15th 3:00pm - 4:00pm (CDT) (5-minutes each)

### Making Our Work Matter - Cybersecurity for Nonprofits, Results from the Field

Kelley Misata, *Sightline Security*

**TRACK: CURRENT TECHNOLOGY AND CHALLENGES**

In 2018, Americans gave \$427.71 billion to nonprofit organizations. You, like many WiCyS attendees, may have given time, energy or money to your favorite nonprofit, never giving a second thought to their security preparedness. Our best intentions of bringing cybersecurity superpowers to nonprofits are often met with open arms. However, the reality is that many nonprofits have no idea what they need, and we, as the experts, jump in with solutions we think they need. Join this talk to hear about Dr. Kelley Misata and her new nonprofit start-up, Sightline Security. Missioned to help nonprofits navigate comprehensive cybersecurity with confidence, Dr. Misata will present results from a recent pilot in which her team worked side-by-side with nonprofit organizations. She will illustrate how bringing a business-centric approach using everyday language to nonprofits drives them to improve cybersecurity through improved awareness AND also gives them a seat at the table to own their own security efforts. Attendees will walk away with an understanding of how to use their security capabilities to provide beneficial and measurable progress to their favorite nonprofits.

### My First CTF Changed My Life - How CTFs Can Make You a Better Software Developer

Melodie Moorefield-Wilson, *Pendo.io*

**TRACK: CAREER DEVELOPMENT**

As a software developer, Melodie Moorefield-Wilson was familiar with writing good code, or so she thought. She repeatedly heard about security vulnerabilities that occurred because of issues with a developer's code base. But how did security researchers manage to find these vulnerabilities? In her talk, Melodie will discuss how she started to learn about Capture the Flag (CTF) competitions, how reluctant she was to get involved and how she overcame that reluctance. She also will discuss how her first CTF completely changed her perspective on software development, and how anyone can get involved in making software more secure and safe. She will provide step-by-step guidelines for beginners to get started and give resources for individuals who want to get started in these competitions. It can be intimidating at first, but anyone can learn if they have the desire. Let's explore CTFs together!

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## Live Coaching

Tuesday, April 14th & Wednesday, April 15th 7:00pm - 9:00pm (CDT)

### National Cyber League (NCL) Live Coaching

Join the NCL Player Ambassadors for this remote training session exclusive to WiCyS members! They will work in small groups to help guide you through the WiCyS Gym CTF Challenges.

## WiCyS Coffee Clutch

Wednesday, April 15th 4:00pm - 5:00pm (CDT)

### Staying Productive During Times of Stress

Megan Kaczanowski, Stacey Romanello, Jessica Nelson and Angeliki Zavou

Tips and tricks on how to stay productive in times of stress (from exams to job interviews to global pandemics). We'll chat briefly about how to set effective goals and stick to them, host a brief Q&A, and walk through a goal-setting exercise.

### #Kudos, Celebrating You!

Lynne Miller, Heather Romero and Kathy Frain

Let's celebrate your accomplishments whether you're in college or working – network, play games, share what you've done or just something fun. While we're at it – maybe win a prize, maybe meet some new people, maybe find a mentor.

### Icebreakers - A New Virtual 1x1 Networking Game

Kristen Beneduce

Meet WiCyS members in a super fun and friendly virtual 1x1 icebreakers game! In this session, we'll use Icebreaker.video, a new online platform where you will get matched 1x1 with other participants on short virtual calls! You and your match will be given game cards and answer easy questions about yourself, your life, work, and career aspirations. There will be about 5 rounds each providing a fun and interactive way to make new connections! Community builders and team leads may also find this session useful to get a sneak peak of this new platform.

Required: camera, microphone, and a \*google account\* to sign in. Come for as many rounds as you like. The room can hold up to 40 participants at a time. When a seat becomes available new participants will be able to join by simply clicking the meeting link.

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## WiCyS Coffee Clutch

Thursday, April 16th 3:00pm - 4:00pm (CDT)

### Best Cybersecurity Learning Tools and Websites

**Areej Al-Bataineh, Amanda Keammerer, Geeta Goswami, Lisa Marie Gomez, Meerna Ammari, Narsa De Luna and Vanessa Clark**

WiCyS San Antonio Affiliate is hosting a social where you can share and learn about the best tools and websites for mastering cybersecurity topics and skills, in addition to obtaining valuable certifications such as Security+, CEH, CISSP, and others.

### Social Discussion on the State of the Cyber Job Market

**Deidre Diamond and Nathan Chung**

Come join the discussion as Nathan Chung and Deidre Diamond, the Founder and CEO of CyberSN and Secure Diversity, discuss how this world health crisis is impacting the cyber job market. Topics will include what job searches look like now, how diversity and inclusion are impacted during a troubled economy, and interviewing tips in today's climate.

### Open Topics for Women in Cybersecurity

**Vidya Ganesh, Dalal Alharthi, Yulduzhon Ismatullaeva, Caroline Mugimu and Lorena Cano**

Do you have an Open Topic on your mind that you'd like to recommend for discussion with other WiCyS mentors and allies? If yes, please join-in on this virtual "Open Topics" discussion. Farmers WiCyS Affiliate officers and allies provide a safe space for you to share ideas and learn from our experience. There is no topic BIG or SMALL, because we're looking for Innovation. The goal is to allow everyone's voice to be heard and get you more invested in the success of the team as a whole.

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## Keynote Speakers



### Power, Influence and the Art of Female Leadership

**Gretchen Block**, *Optum*

Thursday, April 16th 12:15pm - 12:45pm (CDT)

Gretchen Block will chronicle her own journey from John Deere HealthCare to becoming a global leader at Optum/UnitedHealth Group driving technology risk management across business towers and geography. This keynote will focus on an uncomfortable topic for female leaders around organizational politics, positional and personal power, the juxtaposition of power and influence, and female leadership potential.

Female leaders emerging in the workforce must employ savvy and grit to maximize their leadership potential. Sharing her journey, Gretchen will touch on this often unspoken topic with courage and candor. Gretchen Block began her career in 1995, with John Deere HealthCare. Her roles included IT Asset Management, Computer Operations, and Security. Gretchen joined Optum in 2006, as part of the acquisition of John Deere HealthCare with UnitedHealth Group. With Optum, she has been a part of the Enterprise Security organization, working specifically with risk governance, compliance management, and threat management in support of the broader cybersecurity program. Currently, Gretchen leads the enterprise policy, risk governance, and security operations teams supporting critical business areas within UnitedHealthCare and Optum.



### Seize the Moment!

**Diane M Janosek**, *Commandant, NSA's National Cryptologic School*

Friday, April 17th 10:25am - 10:50am (CDT)

Our time is now to change the trajectory and not just move the needle but own the needle. We have the power now to solidify our future by creating business partners and networks with women-owned businesses so that women not only work in the field but also become leaders with strong innovative diverse teams reflective of their core strengths of collaboration, innovation and intelligence.

Ms. Diane M. Janosek is an award-winning cybersecurity leader and sought-after speaker. As an innovator, she has been a member of the Defense Intelligence Senior Executive Service (SES) since 2012. She currently serves as the National Security Agency's Commandant and Training Director for the National Cryptologic School, which is comprised of four colleges, to include the Colleges of Cyber and Cryptology. In her role, she manages and oversees the delivery of unique courses for the U.S. intelligence workforce, both civilian and military, in the areas of cyber, network security, cyber resilience, and encryption, ensuring a strong federal workforce to defend critical national security networks. Ms. Janosek's areas of expertise include academic leadership, privacy and technology, governance and data policy, export control, defense acquisition, information, and cybersecurity. In her current role, she is committed to the educational, leadership, professional and practical learning needs of the nation's cyber workforce in today's dynamic threat environment.

## Sessions

Thursday, April 16th 1:00pm - 2:00pm (CDT)

### **Making Cybersecurity Operations More Efficient: Human and Machine Working Together\***

**Awalin Sopan**, *Sophos*, **Rekha Bachwani**, *Netflix*, and **Michelle Cantos**, *FireEye*

**PANEL | TRACK: BEST PRACTICES**

Many organizations run a Security Operations Center (SOC) or subscribe to an external security service to keep their data safe. In addition, security analysts in the SOC assess vast amounts of data from multiple sources using various tools. However, there is too much data and too little time. The panelists will describe how they have used machine-learning techniques to accelerate the process of handling cybersecurity events for faster results.

### **Rising Leadership: A Group Discussion on How to Make a Difference and Have a Positive Impact from the Start of Your Career**

**Kaitlyn Bestenheider** and **Jeana Cosenza**, *Tevora / National Cyber League*, **John McGill** and **Sophia Anderson**, *National Cyber League*

**BIRDS OF A FEATHER | TRACK: CAREER DEVELOPMENT**

When you first start out in any new career path, it's hard to imagine having a meaningful impact especially in an industry as vast and ever-changing as information security. At the 2019 WiCyS, Kaitlyn Bestenheider received the Rising Leadership Award. After a year of reflection, Kaitlyn and her team of NCL Player Ambassadors realized it does not take an innate talent or gift to make a difference. There are specific, actionable goals every individual can implement at any point in their career regardless of experience level or power within an organization. This will be an open dialogue led by the NCL Player Ambassadors, who will share insights they have discovered and gather the insight of others with a focus on helping entry-level individuals find their voice and positively impact the industry. Topics include: What makes a good leader; what characteristics make you look up to someone; what are the biggest obstacles you find in having your voice heard; how do you want to have a lasting impact on the industry.

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## Sessions

Thursday, April 16th 1:00pm - 2:00pm (CDT)

### Women Securing the Future with TIPPSS for IoT\*

**Florence Hudson**, *FDHint, LLC and NSF CAE at Indiana University*, **Edna Conway**, *Microsoft*, and **Cynthia Mares**, *Disctrict Court Judge, Aurora, Colorado*

#### WORKSHOP | TRACK: BEST PRACTICES

Our increasingly connected world creates great opportunities for increased collaboration and data sharing, leveraging the Internet of Things (IoT) to enable connected systems to improve the human experience and business outcomes. From supply chain efficiency to connected healthcare and smart connected communities, the opportunities are endless. So are the risks. We all use IoT devices, but are they safe? Engineers and computer scientists are designing, developing and manufacturing IoT systems. How do we enable Trust, Identity, Privacy, Protection, Safety, Security (TIPPSS) for IoT systems? What are the implications of the IoT related to privacy, security and each individual's civil rights? This panel of women engineers, scientists, lawyers and a judge representing industry, government, research and academia will share their perspectives and debate how ready we are to deliver TIPPSS for the IoT, the opportunities and risks, and how we all can be part of the solution. They will share the privacy, policy, technology and standards implications and efforts underway regarding TIPPSS for IoT. The panel participants are coauthors of the book "Women Securing the Future with TIPPSS for IoT."

Thursday, April 16th 2:00pm - 3:00pm

### Losing our Reality: Combating Deepfake Threats\*

**Alyssa Miller**, *AlyssaSec.com*

#### PRESENTATION | TRACK: LOOKING AHEAD

As a result of continuing advancements in AI, deepfake media has become increasingly convincing and easy to produce. Experts have warned of the impact this could have on elections and personal security. However, the threats that deepfakes pose to businesses and global markets are receiving less attention and therefore not as well understood. This session will analyze the deepfake threats to our social, political and business systems. Threat vectors in terms of market manipulation, insider trading, extortion and theft of intellectual property will be presented and analyzed. Psychological research into the effects of disinformation campaigns also will be leveraged to provide further context regarding the full impact of these threats. Various detection techniques will be analyzed to show their promise as well as their limitations. The latest research on possible countermeasures to help prevent deepfake creation also will be presented.

### Catching the CAN Bus: Car Hacking on a Budget\*

**Rachel Velasco**

#### PRESENTATION | TRACK: CURRENT TECHNOLOGY AND CHALLENGES

As cars become smarter, their attack surface grows. What exactly can you (and others) do to your own car? This talk will cover core concepts in car hacking: The CAN bus and its protocols, ECUs, and how to manipulate them. Rachel Velasco also will go into recent breakthroughs in automotive security and how to start building your own research workbench.

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## Sessions

Thursday, April 16th 2:00pm - 3:00pm (CDT)

### A Hacker's Mindset: How to Think and Perform Social Reconnaissance Like an Ethical Hacker/Penetration Tester\*

**Laura Puterbaugh, Genevieve Marquardt, Jennifer Rodrick, Hillary Carney, and Anna Etherton,**  
*Department of Homeland Security, Cybersecurity and Infrastructure Security Agency (DHS, CISA)*

**WORKSHOP | TRACK: BEST PRACTICES**

Imagine a fast-forwarded movie montage of our protagonist diligently staking out a target and planning a course of action. It's not action-packed, but is the necessary precursor to enable the forthcoming fireworks. The foundation of conducting a successful hack is primarily based on preparation. This preparation phase, in the hacker methodology, is "reconnaissance." This workshop begins with a demonstration on how an ethical white-hat hacker approaches assessing a target, the logic behind his/her thoughts, and best practices behind his/her methods. Participants will take part in a hands-on lesson in which they perform reconnaissance using publicly available resources to find information on a target victim, including tips, tricks and technical commands. This exercise will be followed by a discussion on what a hacker would do with the discovered information and how it would benefit his/her penetration test/assessment. We will discuss ways users can apply the skills learned in this workshop toward following an ethical hacking career path. The workshop ends with a Q&A.

Thursday, April 16th 7:00pm - 9:00pm (CDT)

### Professional Affiliates Night ~~Out~~ IN!

**Malia Mason, WiCyS SoCal President; Rae Beccera, WiCyS New England President**

Have you ever wanted to join an affiliate? Are you missing your WiCyS family? Come hang out with us and ask your affiliate leaders anything! This relaxed virtual social event is to connect and collaborate.

### Student Chapters Night ~~Out~~ IN!

**Ikjot Saini, University of Windsor and Shannon McHale, Rochester Institute of Technology**

Hey students! Interested in joining or starting your own student chapter on your campus? Come join us and ask the student chapters anything! This relaxed virtual social event is for students to join, ask questions and network with other likeminded individuals!

\* Continuing Professional Education (CPE) credits available based on participants session attendance AND completion of the WiCySv20 evaluation form.

## Sessions

Friday, April 17th 11:00am - NOON (CDT)

### Best Practices for Companies to Engage with Law Enforcement and Counsel in Response to a Cybersecurity Incident\*

**Kristy Greenberg**, *U.S. Attorney's Office for the Southern District of New York*, **Erin Joe**, *The Office of the Director of National Intelligence*, **Amy Mushahwar and Kimberly Peretti**, *Alston and Bird LLP*

**PANEL | TRACK: BEST PRACTICES**

Information security professionals may be responsible for incident prevention, detection and escalation on a day-to-day basis. But when a significant cybersecurity incident occurs, other stakeholders need to get involved, fast. This panel will explore effective strategies for engaging with federal law enforcement and counsel in responding to a cybersecurity incident. They will explore the changing nature of the cyber national security threat to the private sector as well as how and when to engage with law enforcement and counsel. Panelists will address the common misconceptions that company insiders may have when dealing with law enforcement and prosecutors in cybercrime investigations. They also will review the role of counsel in managing privilege and evidence preservation, as well as the company's communication with law enforcement, regulators, investors and customers. The panelists and moderator are four women who have significant cyber experience and bring different perspectives to working with information security personnel in a cyber-crisis.

### Let's Navigate Together in the Maze of Cybersecurity Certifications\*

**Noureen Njoroge**, *Cisco*, **Malia Mason**, *Integrum*, **Dr Mona Lisa Pinkney**, *Nike*

**PANEL | TRACK: LOOKING AHEAD**

As cybersecurity is ever growing, the need for qualified professionals gets wider. Every role requires a special skillset and approved certifications. AS the panelists, we will share our security journey and detail which certifications we found most useful to our careers. Many times, people take many certifications, pay so much money for them and yet are unemployed. We want to put a halt to this result and provide the audience with better guidance. By the end of the panel discussion, we aim to: Enlighten the audience on best certification processes, learn how to find free certification training and save money, understand how to best use certifications, and share top certifications that are heavily sought after by major corporations. We believe in thriving together and sharing our own personal journey to help us connect with the audience and close the confusion gap of certification achievements.

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## Sessions

Friday, April 17th 11:00am - NOON (CDT)

### Diverse Paths for Women to Enter Cybersecurity Careers

**Carol Woody**, *Software Engineering Institute*, **Marian S Merritt**, *NIST NICE* and **Kris Winkler**, *BCG Platinion North America*

**BIRDS OF A FEATHER | TRACK: CAREER DEVELOPMENT**

The goal for cybersecurity is protection against criminals and unauthorized use of electronic data or the measures taken to achieve this. However, this does not describe the many avenues for women within technology where cybersecurity expertise is needed. Technology decisions that directly impact an organization's ability to address cybersecurity are made at many levels. Since technology is integral to all domains, including government, defense and finance, the opportunities for addressing cybersecurity are diverse and interesting. Four women in this panel will share their background, expertise and information that helped them achieve important roles in cybersecurity. They will start with an overview of the various cybersecurity roles open to women established in or just entering the workforce, as well as consider questions related to the importance of women joining the field and the value gained from a cybersecurity career. They also will make suggestions for preparing for these roles. At the end, they will solicit questions from attendees to ensure all areas of interest are addressed.

Friday, April 17th NOON - 1:00pm (CDT)

### A CISO's Guide to Cybersecurity Careers\*

**Lora Vaughn**, *Simmons Bank*

**PRESENTATION | TRACK: CAREER DEVELOPMENT**

Transitioning from a cybersecurity student to a cybersecurity professional sounds daunting, but it doesn't have to be. In her current role as Chief Information Security Officer and previous roles in cybersecurity management, Lora Vaughn McIntosh helped several recent graduates and career changers successfully make that transition. Unfortunately, it's not always easy to understand what types of cybersecurity careers exist, let alone how to land one. In this talk, she'll share her career journey, some tips on how to learn more about specific cybersecurity roles, and address common questions about cybersecurity careers in the corporate world, including: How do I get my foot in the door; what are some areas of specialization I can pursue in cybersecurity; what's the difference between a cybersecurity analyst, engineer and architect; what can I do to make myself a marketable cybersecurity professional; and how do I prepare for interviews?

\* Continuing Professional Education (CPE) credits available based on participants session attendance AND completion of the WiCySv20 evaluation form.

# #WiCySv20 Summit

## Sessions

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Friday, April 17th NOON - 1:00pm (CDT)

### Gotta Catch 'Em All - Bug Bounty!\*

Chloe Messdaghi, *Point3 Security, WoSEC, WomenHackerz*

**PRESENTATION | TRACK: CURRENT TECHNOLOGY AND CHALLENGES**

Bug bounty has been a long-time craze and become a necessity to keeping organizations safe by crowdsourcing their security. As the demand increases, the supply needs to increase as well. However, getting into the bug bounty space can be tricky and hard to start. This talk approaches the history of bug bounty, the current legal landscape, and the next steps for bug hunting, including how to get started and which tools to use.

### Integrating Cybersecurity Industry Certifications in Higher Education Curriculum, and Strategies for Improving Student Certification Pass Rates\*

Laura Malave and Julia Meyer, *St. Petersburg College*

**WORKSHOP | TRACK: CAREER DEVELOPMENT**

Cybersecurity industry certifications are important for validating technical skills, helping students gain entry-level positions, and helping industry professionals position themselves for the next level. By aligning academic curriculum with industry certifications, educators can demonstrate they are teaching current, relevant cybersecurity technical skills in their coursework, and prepare students for success in the industry. In this workshop, we'll discuss integrating cybersecurity industry certifications in academic courses and strategies for supporting students for test taking as well as techniques for improved pass rates.

We will share the free, open source and publisher curriculum, materials, hands-on labs and platforms available for educators to integrate into their current or new courses to align with cybersecurity industry certifications. We'll provide interactive demonstrations of academic curriculum and other interactive support activities. Workshop participants will learn strategies to increase student success rates in cybersecurity industry certifications. Many of these same strategies are applicable to working professionals seeking self study for industry certifications and career growth.

\* Continuing Professional Education (CPE) credits available based on participants session attendance AND completion of the WiCySv20 evaluation form.



#WiCySv20

## WiCySv20 Committee

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**Aditi Chaudhry**

*Cybersecurity Engineer, Two Sigma*

**Ambareen Siraj**

*Professor, Director, Cybersecurity Education Research and Outreach Center, Tennessee Tech*

**Andrea Frost**

*Senior Software Security Engineer, Dell EMC*

**Dr. April L. Tanner**

*Associate Professor/Graduate Program Director of Computer Science, Jackson State University*

**Ashley Podhradsky**

*Associate Dean, Beacom College of Computer and Cyber Sciences at Dakota State University*

**Celeste Matarazzo**

*Data Science Expert, Lawrence Livermore National Laboratory*

**Chutima Boonthum-Denecke**

*Professor, Computer Science at Hampton University*

**Dr. Chuan Yue**

*Professor, Colorado School of Mines*

**Colleen Huber**

*Senior Creative Director, Nelly Group*

**Dr. Dalal Alharthi**

*Faculty and Cloud Security Engineer*

**Deepthi Gupta**

*PhD student at University of Texas, San Antonio*

**Dr. Denis Ulybyshev**

*Assistant Professor, Department of Computer Science, Tennessee Tech University*

**Emily Brown**

*Cyber Systems Engineer at The Johns Hopkins University Applied Physics Laboratory*

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**Dr. Kelley Misata**

*CEO and Founder, Sightline Security*

**Lora Vaughn**

*CISO, Simmons Bank*

**Lynn Dohm**

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**Lynne Miller**

*Dept Manager at Raytheon*

**Malia Mason**

*CEO / Co-Founder of Integrum*

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*Professor, The Citadel*