2014 Conference

Women in Cybersecurity

April 11 & 12
Nashville, TN

Funded by
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11-APR-14

1:30 - 5:00 pm  Registration
BALLROOM FOYER
Registration will open at 1:30 PM
Refreshments will be served from 2:30 PM

2:00 - 4:30 pm  Workshops
MEMPHIS
Security Competition Student Workshop: Jason Pittman,
Capitol College
KNOXVILLE
Secure Coding Faculty Workshop: Elizabeth Hawthorne,
Union County College and Blair Taylor, Towson University

4:30 - 5:30 pm  Student Sessions
BALLROOM FOYER
Student Poster Session
SALON A
Resume Clinic: Don Foster, Tennessee Tech University

5:30 - 6:45 pm  Dinner
CUMBERLAND
Welcome: Joseph Rencis, Dean, College of Engineering,
Tennessee Tech University
Opening: Ernest McDuffie, Lead for National Initiative for
Cybersecurity Education (NICE), National Institute of Standards
and Technology (NIST)
Keynote: Deb Frincke, Commandant National Cryptologic
School/Training Director NSA
Follow Your Heart While Using Your Head: The talk will build on the speaker’s
personal journey, through university educator, startup company, chief scientist
at a national laboratory, and now senior executive leadership at the National
Security Agency. The speaker will emphasize “ah ha!” moments and turning
points along the way.

7:00 - 7:45 pm  Session I with Distinguished Speakers
Track A: Research
Session Chair: Terry Benzel, USC Information
Sciences Institute
Jaeyeon Jung, Microsoft Research
SALON F
Consumer privacy protection on mobile devices: The talk will discuss
limitations of the current mobile ecosystem that permitted “unexpected use”
of privacy-sensitive information, including ineffective permission request dia-
logs, lack of data flow feedback to users, and little technical support to app
developers for “privacy debugging”. Will present speaker’s past and current
research projects to address some of these issues.

Track B: Education
Session Chair: Soon Ae Chun, City University of New York
Diana L. Burley, CRA Distinguished Speaker, George
Washington University
SALON G-H
Disrupt!!: The complex cybersecurity environment requires actions and voices
that disrupt accepted thought patterns and challenge the status quo. This talk
will share how speaker discovered the value of disruptive ideas for addressing
the nation’s cybersecurity challenges, and will encourage you to think about how you can frame your education and experience in this same way.

**Track C: Industry**
Session Chair: Dawn Carroll, Cigital Inc.
Lisa Foreman, Women’s Society of Cyberjutsu

**Cyberjutsu: The Art of Cyber:** Founder & CEO of the Women’ Society Cyberjutsu, shares her journey into the cyber profession. The talk will discuss why there has never been a better time to be a cyber professional and how women can provide new insight and capabilities to this challenging and rewarding career. Speaker will illustrate how we possess the innate ability to lead teams and provide solutions to complex challenges.

**7:45 - 8:30 pm  Session II: Technical Presentations by Attendees**

**Track A: Research**
Session Chair: Elizabeth Hawthorne, Union County College & ACM-W
Emily Shen, MIT Lincoln Lab

**Efficient, Privacy-Preserving Data Sharing:** Modern cryptography provides several different types of tools that offer the promise of searching on encrypted data. This talk will illustrate the cryptographic advances that make these technologies possible. Additionally, the rigorous software engineering and formal techniques employed by MIT Lincoln Laboratory to test that the researchers’ software met all of the security, functionality, and performance requirements will be described.

**Track B: Education**
Session Chair: Angela Clark, University of South Alabama
Diane Murphy and Michelle Liu, Marymount University

**Redefining Cybersecurity Competitions to Increase Female Participation:** One of the first exposures to cybersecurity for young people is often the cybersecurity competition, offered at the high school and college levels. Most of these competitions have a decidedly “male” focus, based on military principles, emphasizing success as being successful “attacks” to a system. As a result, very few females are attracted to these events and only a few participate. How can that be changed? This work, sponsored by the National Science Foundation (NSF) under award number 1318799, will describe some of our research on cybersecurity competitions, particularly female participation, on our experience with facilitating student involvement in developing the competition platform, and our approach to attracting female high school students to the summer institute.

**Track C: Industry**
Session Chair: Sherida Jacob, Department of Defense
Robin Williams, Chief, National Cybersecurity Education & Awareness Branch, Department of Homeland Security

**Cybersecurity — What Women Bring:** This presentation focuses on national effort to raise the bar of cybersecurity skills across the nation, and how women are key to the success of our nation’s efforts to protect our economic and national security.

**8:30 - 9:15 pm  Session III: Panel Session**

**Track A: Research**
(Moderator) Sharon Burlingame: Pellissippi State Community College
(Panelists) Valerie Barr: National Science Foundation, Terry Benzel: University of Southern California, David Dampier: Mississippi State
Obtaining Funding for Cyber Security Initiatives: Panelists who have written successful grants will share their insights, success stories, challenges, opportunities, and strategies for obtaining funding and maintaining successful programs.

Track B: Education
(Moderator) Lisa Duge: Johns Hopkins University (Panelists) Diana Burley: George Washington University, Ronda Henning: Harris Corporation/Florida Institute of Technology, Jaeyeon Jung: Microsoft Research, Susanne Wetzel: Stevens Institute of Technology

Graduate School Panel: A graduate school panel would be a great way for undergraduate students or professionals seeking another degree to learn about educational opportunities. The panel members could consist of: graduate students, professors, and current professionals who attended grad school. Topics to discuss include scholarships (SFS and others), degree choices (computer science, information security, policy), benefits, and finding the right program.

Track C: Industry
(Moderator) Dawn Beyer: Lockheed Martin (Panelists) Jacqueline Bow: MIT Lincoln Laboratory, Linda Ciulla: RSA, Eleni Gessiou: Facebook, Perri Nejib: Lockheed Martin

How Did I Get Here: My Struggles and Triumphs: Technical women across cybersecurity industry will share experiences and thoughts on the industry world of cyber security, how they got there, challenges and overcoming of challenges, and the opportunities the area presents. Goal is to foster interest in cyber security as a career in industry and provide guidance on how to pursue.

9:15 - 9:45 pm Session IV: BoFs (Birds of a Feather Sessions)
Track A: Research
Session Chair: Lynn Lovewell, University of Southern Maine
Rose Shumba: UMUC, Rebecca Bace: University of South Alabama, Corrinne Sande: Whatcom Community College, Carol Taylor: Eastern Washington University

Is Cybersecurity different from Computer Science with regard to Recruiting and Retaining Women and Minorities in the field?: This BoF session will discuss whether Cybersecurity is indeed substantially different from Computer Science (CS) with regard to recruiting and retaining women and minorities in the field. This work is a continuation of the ITiCSE 2013 Working Group (WG) on Cybersecurity, Women and Minorities.

Track B: Education
Session Chair: Simin Hall, Virginia Tech
Barbara Hewitt, Texas A&M University

Enhancing Classroom Learning About Security with other Opportunities:
This discussion will stem around the mechanisms that instructors can use to enhance the delivery of security content including meetings such as local ISSA meetings, webinars, conferences, YouTube Videos, hands-on workshops, internships, class field trips, speakers, competitions, and online course delivery.

Track C: Industry
Session Chair: Jean Pawluk
Caroline Dennis, Career Catalyst

Information Security Career Trends: What's Hot and Where do You Fit?: This discussion will kick off with a broad overview of the current and emerging job outlook of infosec professionals. Other topics of discussion will be about what kind of
job environments exist and how can women find their place in it. This discussion will be aimed at helping to bring the various career choices into better focus.

9:45 - 10:45 pm  **Social/Networking/Ice-breaker Activity**  
Fun and Fondue: Susan Kevra and The Cantrells  
End of Day 1

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8:15 - 9:45 am  **Breakfast**  
Opening Remarks: Valerie Barr, Program Director, NSF  
Keynote: Michele Cantley, Senior Vice President and Chief Information Security Officer, Regions Financial

**How to Establish a Career in Cybersecurity and the Track to Becoming a CISO:** The talk will address the do’s and don’ts with regard to degrees, certifications and experience. The speaker will also provide helpful advice on the skills needed by a CISO and her personal experiences with the paths various CISO’s (including herself) have followed to get the job. Lastly, she will address the all important topic of networking.

9:45 - 10:45 am  **Session V: 5 Minute Lightning Talks**  
Session Chair: Ashley Spangler, ISACA

- **Kieu Lam, Facebook**  
  2fac authentication + your organization: Will present how Facebook implemented 2fac authentication using the latest technologies with the least amount of friction. Security can be simple and sexy.

- **Dawn Carroll, Cigital**  
  Networking for the introverted: Will focus on ways to get out of introvert shell and push oneself into unfamiliar waters to achieve success.

- **Melaina Myers and Vitaly Ford, Tennessee Tech University**  
  CyberEagles: A cybersecurity club for students: Will present the benefits and mechanisms of initiating and sustaining a cybersecurity club for students. TTU CyberEagles club will share their story.

- **Susanne Wetzel, Stevens Institute of Technology**  
  Pathways in Cybersecurity between 2-Year and 4-Year Institutions: Will present the pilot study between Union County College and Stevens Institute of Technology to explore options for a pathway between 2-year and 4-year institutions. We will discuss opportunities, challenges, and lessons learned to date.

- **Dawn Isabel, Hewlett-Packard**  
  Data, Unprotected: How mobile applications betrayed my trust: Will present the results of analyzing personal smartphone for evidence of sensitive data disclosure, and summarize best practices for protecting your data — even when your apps don’t.

- **Dale Rowe, Brigham Young University**  
  Continuing Education: Will present continuing education opportunities for women focusing on Graduate studies and Certifications. Based on experiences within IT program.

- **Suzanne Mello-Stark, University of Rhode Island**  
  Digital Forensics and Cyber Security: Will present Digital Forensics and Cyber
Security Programs overview, differences, opportunities and example in University of Rhode Island.

Jeremy Epstein, NSF

Scholarships for Women Studying Information Security (SWSIS): SWSIS offers various scholarships for women studying any aspect of information security at an undergraduate or masters’ level. Will describe the history and future of the program, and describe the requirements and deadlines for application.

10:45 - 11:00 am Group Picture Session

11:00 - 11:15 am Refreshment Break

11:15 - 12:00 pm Session VI with Distinguished Speakers

Track A: Research
Session Chair: Diane Murphy, Marymount University
Jeanna N. Mathews, ACM Distinguished Speaker, Clarkson University

Strategies for Research in Computer Security: The talk will discuss strategies for finding important and inspiring cybersecurity problems that you are able and ready to solve. We will look at concrete examples of using readily available systems and data to study attackers and their methods. We will then discuss how to take the insight you gain and turn it into high quality publications.

Track B: Education
Session Chair: Chrisila Pettey, Middle Tennessee State University
Cynthia Irvine, Naval Postgraduate School

Through the tangle of cyber education: Is learning cyber security a sentence to life in the cyber dungeon as a boring drone? No! This talk will explore the context of cyber studies and how various paths in the classroom can lead to fulfilling careers.

Track C: Industry
Session Chair: Viola Williams, Active Health
Merisa Viveros, Vice President, Cyber Security Innovation Initiative, IBM Corporation

Leading a Security Team: Challenges and Rewards: This presentation describes the challenges that security leaders must face in an environment of increasing threats. Deriving from experiences in the field, it recommends best practices for addressing and solving these challenges, by leveraging people, processes and technology. It also highlights the increasingly important and technically rewarding role played by skilled security professionals.

12:00 - 12:45 pm Session VII: Technical Presentations

Track A: Research
Session Chair: Amy Butler, George Washington University
Limin Jia, Carnegie Mellon University

Formal Models and Verification of Software Systems: Formal verification of system properties is crucial to the security of software systems. Combining the design, implementation, and verification of software systems can produce high-assurance systems. This talk will present two research projects where the modeling and verification play a central role in ensuring the security of the software systems.

Track B: Education
Session Chair: Patricia Tamburelli, County College of Morris
Dianne Fordell: IBM and Scott Buck, Intel
Industry Resources for Universities for Supporting Cyber Security Education: This presentation demonstrates how industry, particularly IBM and Intel can assist university faculty in developing and delivering excellent security education to university students around the world.

Track C: Industry
Session Chair: Patricia McQuaid, California Polytechnic State University
Lora Mcintosh: Regions

Application Security: (White Hat) Hacking for a Living: Popular culture would have us believe that the only hackers are anti-social males who spend every day in a basement trying to steal your credit cards, money and identity. On the contrary, a number of skilled hackers are behind the scenes at companies worldwide. These individuals work to exploit applications and push for remediation so that malicious hackers cannot exploit them. This talk will explore web application security in the corporate world and the major application flaw types as well as the knowledge, skills, and tools to it takes to be a professional white hat hacker.

1:00 - 2:30 pm Lunch
NCWIT TN Aspiration Awards: Ruthe Farmer, Director of Strategic Initiatives, National Center for Women & IT (NCWIT) and Martha Kosa, TTU

WiCyS Poster Awards

Closing Remarks: Becky Bace, Chief Strategist for the Center for Forensics, Information Technology and Security (CFITS), University of South Alabama

2:30 - 4:30 pm Refreshment Break
Career & graduate school Fair

Workshops

MEMPHIS
Discovering CyberSecurity Student Workshop: Tom Pigg and Lisa Matlock, Jackson State Community College

KNOXVILLE
Facilitating Active Learning in Security Faculty Workshop: Ambareen Siraj, Tennessee Tech University

End of Day 2

SPECIAL THANKS TO:
Resume Clinic Experts
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Leah R. Pietron
Lou Ann Stroup
Na Li
Nancy Smithfield
Philip Armbrust
Sandra McLeod
Sharon Burlingame
Tamara Griffin
Yesem Peker

Poster Session Judges
Anna Jo Stephens
Areej Albataineh
Brooke Mullican
Julia Bell
Khadija Stewart