

KEVIN RAYMOND BOYCE BUTLER

Professor
Department of Computer & Information Science and Engineering
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Current Academic Appointment

Professor, Department of Computer and Information Science and Engineering, University of Florida, Aug. 2021 - *present*

Director, Florida Institute for Cybersecurity Research, University of Florida, Aug. 2022 - *present*

Educational Background

Ph.D. in Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, August 2010 (Dissertation Title: *Leveraging Emerging Storage Functionality for New Security Services*; Advisor: Dr. Patrick McDaniel)

M.S. in Electrical Engineering, Columbia University, New York, NY, USA, May 2003 (Advisor: Dr. Henning Schulzrinne)

B.Sc. in Electrical Engineering, Queen's University, Kingston, ON, Canada, May 1999

Honors & Awards

Finalist, New York University CSAW Applied Research Competition, 2025.

Internet Defense Prize Runner Up Award, USENIX Security Symposium, 2025.

Distinguished Paper Honorable Mention, USENIX Security Symposium, 2025.

Best Paper Award, ACM Conference on Reproducibility and Replicability (REP), 2025.

University of Florida Research Foundation Professor, University of Florida, 2025-2028.

Fellow, European Alliance for Innovation (EAI), 2024.

Distinguished Paper Award, ACM Conference on Computer and Communications Security (CCS), 2024.

Best Paper Award, ACM Conference on Data and Application security and Privacy (CODASPY), 2024.

Best Paper Award, ACM HotStorage, 2023.

Privacy-Enhancing Technology Award, Meta Research Labs, 2022.

Best Paper Finalist, IEEE European Symposium on Security and Privacy, 2022.

University Term Professor, University of Florida, 2021-2024.

Best Paper Nominee, IEEE Conference on Virtual Reality, 2021.

Doctoral Dissertation Advisor/Mentoring Award, Herbert Wertheim College of Engineering, University of Florida, 2019.

Distinguished Poster Award, ACM CODASPY, 2019.

Arnold and Lisa Goldberg Rising Star Endowed Professorship, University of Florida, 2018-2024 (*relinquished in 2021 upon promotion to Professor*).

University Term Professor, University of Florida, 2018-2021.
Recognition of Service Award, Association for Computing Machinery (ACM), 2018.
Research Promotion Initiative Award, University of Florida, 2018.
Senior Member, Association for Computing Machinery, 2018.
International Educator of the Year, Herbert Wertheim College of Engineering, University of Florida, 2017.
Senior Member, Institute for Electrical and Electronics Engineers (IEEE), 2017.
Outstanding Community Service Award, IEEE Technical Committee on Security and Privacy, 2017.
Rising to National Preeminence Hire, University of Florida, 2014.
Best Teacher Award, Dept. of Computer and Information Science, University of Oregon, 2013.
CAREER Award, National Science Foundation, 2013.
Alumni Association Dissertation Award, Pennsylvania State University, 2010.
Symantec Intern Project Showcase Winner, Symantec Corp, 2009.
Graduate Research Assistant Award, Computer Science and Engineering Department, Pennsylvania State University, 2009.
Symantec Graduate Fellowship, Symantec Research Labs, 2009-2010.
Special Award of Meritorious Service, Third International Conference on Information Systems Security, December 2007.
University Graduate Fellowship, Pennsylvania State University, 2006.
C. Norwood Wherry Memorial Graduate Fellowship, Pennsylvania State University, 2004.

Research Support (\$44.1M total, \$14.0M as PI, \$12.3M investigator share)

Major Peer-Reviewed Grants (\$41.3M total, \$12.2M as PI, \$10.7M investigator share)

- **PI**, “Collective Modeling for Cybersecurity”, DARPA/Avometric, \$1,181,584 (\$1,181,584 investigator share), 03/01/2025-02/28/2028.
- **co-PI**, NSF CNS-2446321, “SaTC: CORE: Small: Measuring and Improving Reproducibility”, National Science Foundation, \$600,000 (\$262,323 investigator share), 04/01/2025-03/31/2028.
- **PI**, ONR N68335-19-C-0633, “ARTUS Protocol, Phase 2”, Office of Naval Research / P & J Robinson Corporation, \$300,000 (\$254,033 investigator share), 8/1/2023-7/31/2025.
- **co-I**, NIH 1R01MH136195, “AVAIL: Anonymization of Videos using AI for Large scale data sharing”, National Institutes of Health, \$3,916,308 (\$277,546 investigator share), 5/13/2024-5/12/2029.
- **PI**, NSF CNS-2206950, “Collaborative Research: SaTC: Frontiers: Securing the Future of Computing for Marginalized and Vulnerable Populations”, National Science Foundation, \$7,500,000 (\$2,630,872 investigator share), 10/1/2022-9/30/2027.
- **Site PI**, NSF CNS-2055014, “Collaborative Research: SaTC: CORE: Medium: Enabling Practically Secure Cellular Infrastructure”, National Science Foundation, \$1,199,985 (\$598,019 investigator share), 1/1/2022-12/31/2024.

- **co-PI**, NSF CNS-2055123, “SaTC: CORE: Medium: Countering Surveillanceware Using Deception-Based Generative Models and Systems Mechanisms”, National Science Foundation, \$1,199,997 (\$618,531 investigator share), 1/1/2021-12/31/2024.
- **co-PI**, ONR N00014-20-1-2205, “Reconstructing Human Physiological Features from Audio Samples”, Office of Naval Research, \$700,000 (\$333,232 investigator share), 6/11/2021-6/10/2024.
- **co-PI**, DHS 70RSAT20CB0000017, “Deploying Defenses for Cellular Networks Using the AWARE Testbed”, DHS, \$3,122,033 (\$657,536 investigator share), 9/30/2020-9/29/2024.
- **PI**, ONR BAA-N00014-19-S-B001 Grant 12941701, “Mobile Interface Security Analysis”, Office of Naval Research, \$700,000 (\$376,242 investigator share), 1/1/2020-12/31/2022.
- **PI**, AFOSR AACOE, “Interpretable Security Reference Monitor for Deep Networks”, Air Force Office of Scientific Research, \$185,000 (\$185,000 investigator share), 12/1/2019-8/31/2021.
- **co-PI**, ONR DOD-19-STTR, “ArtusProtocol”, Office of Naval Research, \$800,000 (\$400,000 investigator share), 8/1/2019-7/31/2021.
- **co-PI**, AFOSR FA8650-19-1-1741, “University Center of Excellence: CYAN: Enabling Cyber Defense in Analog and Mixed Signal Domain”, Air Force Office of Scientific Research, \$5,000,000 (\$300,000 investigator share), 10/1/2019-9/30/2024. Selected for funding by AFOSR on 5/24/2019.
- **co-PI**, AFRL-FA9550-19-1-0169, “AFOSR University Center of Excellence in Assured Autonomy in Contested Environments (AACOE)”, Air Force Office of Scientific Research and Air Force Research Labs, \$5,999,515 (\$389,999 investigator share), 3/1/2019-2/28/2024.
- **co-PI**, DARPA HR00118S0052, “RACE: Resilient Communications for Everyone”, Defense Advanced Research Projects Agency, \$1,133,856 (\$382,698 investigator share), 3/1/2019-2/28/2023. Selected for funding by DARPA on 11/20/2018.
- **PI**, NSF/SRC CNS-1815883, “SaTC: STARSS: Small: Domain Informed Techniques for Detecting and Defending Against Malicious Firmware”, National Science Foundation, \$499,990 (\$250,000 investigator share), 11/01/2018-10/31/2021.
- **co-PI**, NSF CNS-1662976, “Collaborative Research: SURPASS: NSF SFS Unique Scholarship Program in Hardware and Systems Security”, National Science Foundation, \$2,508,541 (\$35,408 investigator share), 01/01/2017-12/31/2021.
- **co-PI**, NSF CNS-1562485, “TWC: Medium: Digital Healthcare-Associated Infection: Measurement, Defense and Prevention in a Modern Digital Healthcare Ecosystem”, National Science Foundation, \$1,200,000 (\$387,931 investigator share), 06/01/2016-05/31/2020.
- **PI**, “Developing Research Capability in Cyber-Physical Systems at the University of Florida”, Defense University Research Instrumentation Program (DURIP), Army Research Office, \$199,919 (\$100,000 investigator share), 09/01/2015-08/31/2016.
- **PI**, NSF CNS-1445983/1540216, “EAGER: Collaborative: Secure and Efficient Data Provenance”, National Science Foundation, \$205,000 (\$110,000 investigator share), 10/01/2014-03/31/2016.

- **PI**, NSF CNS 1254198/1540217, “*CAREER: Securing Critical Infrastructure with Autonomously Secure Storage*”, National Science Foundation, \$400,000, 04/01/2013-03/31/2018.
- **PI**, NSF CNS 1118046/154028, “*TC:Small:Protection Mechanisms for Portable Storage*”, National Science Foundation, \$515,530, 09/01/2011-08/31/2016.
- **co-PI**, “*GAANN Program on Computer Systems Security*”, US Department of Education, \$1,476,931 (\$184,616 investigator share), 08/16/2015-08/15/2018.
- **co-PI**, DARPA BAA 10-81, “*Characterizing and Implementing Efficient Primitives for Privacy-Preserving Computation*”, Defense Advanced Research Projects Agency and Air Force Research Labs, \$550,000 (\$262,375 investigator share), 05/01/2011-01/31/2015.

Industry and Other Support

- **PI**, “*Proposal for a Florida Department of Management Services Cybersecurity Operations Center*”. Florida Department of Management Services, \$1,551,303 (\$1,012,812 investigator share), 08/01/2025-07/31/2028.
- **co-PI**, “*Mitigating Threat of Re-Identification from Eye-Tracking Data*”, Meta Privacy-Enhancing Technology Award, \$100,000 (\$49,000 investigator share), 09/01/2022-08/31/2023.
- **co-PI**, “*Center for Aerospace Resilience*”, Florida Department of Education, \$875,000 (\$126,214 investigator share), 07/01/2020-06/31/2021.
- **PI**, “*Secure Enclave Computing*”, Royal Bank of Canada, \$87,347 (\$87,437 investigator share), 11/01/2019-01/01/2021.
- **PI**, NSF 1823067, “*Travel Grant Support for ACM WiSec*”, *National Science Foundation*, \$9,000, 05/27/2018-05/26/2019.
- **Co-PI**, “*Formal Analysis of SGX Platform Software*”, *Intel Corporation*, \$50,000 (\$25,000 investigator share), 01/01/2018-12/31/2018.
- **PI**, “*Smartphones and Mobile Money: Analysis and Recommendations for Security*”, *GSMA Mobile For Development Foundation*, \$28,500 (\$13,500 investigator share), 12/01/2017-03/31/2018.
- **PI**, “*Provenance-Based Enforcement Mechanisms*”, *MIT Lincoln Laboratory*, \$137,000, 11/01/2013-10/31/2016.
- **PI**, “*Securing Storage for Insider Threat Mitigation*”, *Florida Cyber Consortium Seed Grant*, \$40,000 (\$20,000 investigator share), 2015.
- **co-PI**, “*Resilience in BGPsec*”, *Battelle*, \$180,000 (\$80,000 investigator share), 02/01/2012-08/31/2013.
- **co-PI**, “*A Cyber-Security Center of Excellence for Oregon*”, *Oregon Engineering, Technology, and Industry Council*, \$180,000 (\$60,000 investigator share), 06/01/2014-05/31/2015.
- **co-PI**, “*I3: An Interdisciplinary Approach to Internet Privacy*”, *University of Oregon Research, Innovation and Graduate Education*, \$50,000, 04/10/2014-03/31/2015.

- **PI**, NSF CNS 1329307, “Oregon Security Day”, *National Science Foundation*, \$8,000, 03/01/2013-04/30/2014.
- **Recipient**, “USB Fingerprinting”, *Ellisys*, *equipment donation*, \$8,000, 2011.
- **Recipient**, “Project HAWAII”, *Microsoft Research*, *equipment donation*, \$1,000, 2011.

Publications (6767 citations [Google Scholar, September 2025], h-index=42, i10-index=99)

Book Chapters

1. Adam Bates, Devin Pohly, and Kevin R. B. Butler. “Secure and Trustworthy Provenance Collection for Digital Forensics.” In C. Wang, R. M. Gerdes, Y. Guan, and S. K. Kasera, eds., *Digital Fingerprinting* (pp. 141–176). New York: Springer-Verlag, 2016.
2. Kevin Butler, William Enck, Patrick Traynor, Jennifer Plasterr, and Patrick McDaniel. “Privacy Preserving Web-Based Email”. *Algorithms, Architectures and Information Systems Security*, Statistical Science and Interdisciplinary Research. World Scientific Computing, November 2008.

Journal Publications

3. Cassidy Gibson, Kevin R. B. Butler, Tadayoshi Kohno, and Elissa M. Redmiles. “The Tools and Tolls of AI Nudification.” *USENIX ;login*, July 2025.
4. Weidong Zhou, Grant Hernandez, Washington Garcia, Dave (Jing) Tian, Sara Rampazzi, and Kevin Butler. “SrFTL: Leveraging Storage Semantics for effective Ransomware Defense in Flash-based SSDs”. *ACM Transactions on Storage*, accepted for publication July 2025.
5. Cassidy Gibson, Patrick Traynor, and Kevin Butler. “Copycat Crimes: Characterizing Code Reuse in the Mobile Android Stalkerware Ecosystem.” *IEEE Security and Privacy*, accepted. for publication June 2025.
6. Seth Layton, Daniel Olszewski, Kevin Warren, Kevin Butler, and Patrick Traynor. “Every Breath You Don’t Take: Deepfake Speech Detection Using Breath”. *ACM Digital Threats: Research and Practice*, accepted for publication June 2025.
7. Kevin Butler, Kurt Hugenberg, Eakta Jain, Apu Kapadia, Tadayoshi Kohno, Elissa M. Redmiles, Franziska Roesner, Mattea Sim, Patrick Traynor, and Hanna Barakat. “Extending the Heilmeier Catechism to Evaluate Security & Privacy Systems: Who is Left Out?” *IEEE Security and Privacy*, accepted for publication March 2025.
8. Chris Moore, Catherine Gill, Nadya Bliss, Kevin Butler, Stephanie Forrest, Dan Lopresti, Mary Lou Maher, Helena Mentis, Shashi Shekhar, Amanda Stent, and Matthew Turk. “Concerning the Responsible Use of AI in the US Criminal Justice System.” *Communications of the ACM*, accepted for publication March 2025.
9. Ethan Wilson, Azim Ibragimov, Michael J. Proulx, Sai Deep Tetali, Kevin Butler, and Eakta Jain. “Privacy-Preserving Gaze Data Streaming in Immersive Interactive Virtual Reality: Robustness and User Experience.” *IEEE Transactions on Visualization and Computer Graphics*, 30(5), pg. 2257-2268, January 2024. *Selected for presentation at IEEE VR 2024 conference.*

10. Brendan David-John, Kevin Butler, and Eakta Jain. "Privacy-Preserving Datasets of Eye-tracking Samples with Applications in XR." *IEEE Transactions on Visualization and Computer Graphics*, 29(5), pg. 2774-2784, January 2023. *Selected for presentation at IEEE VR 2023 conference.*
11. Weidong Zhu and Kevin Butler. "NASA: NVM-Assisted Secure Deletion for Flash Memory." *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, 41(11), pg. 3779-3790, July 2022. *Accepted for presentation at the International Conference on Embedded Software (EMSOFT) 2022.*
12. Tuba Yavuz, Farhaan Fowze, Grant Hernandez, Ken (Yihang) Bai, Kevin Butler, and Dave (Jing) Tian. "ENCIDER: Detecting Timing and Cache Side Channels in SGX Enclaves and Cryptographic APIs." *IEEE Transactions on Dependable and Secure Computing*, 20(2), pg. 1577-1595, March/April 2022.
13. Brendan David-John, Diane Hosfelt, Kevin Butler, and Eakta Jain. "A Privacy-Preserving Approach to Streaming Eye-Tracking Data." *IEEE Transactions on Visualization and Computer Graphics*, 27(5), pg. 2555-2565, March 2021. **Best paper nominee at IEEE VR 2021 conference.**
14. Farhaan Fowze, Grant Hernandez, Dave (Jing) Tian, Kevin Butler, and Tuba Yavuz. "ProXray: Protocol Model Learning and Guided Firmware Analysis." *IEEE Transactions on Software Engineering*, 47(9), pg. 1907-1928, September 2019.
15. Grant Hernandez, Dave (Jing) Tian, Farhaan Fowze, Tuba Yavuz, Patrick Traynor, and Kevin Butler. "Towards Automated Firmware Analysis in the IoT Era." *IEEE Security and Privacy*, 17(5), pg. 38-46, Sept.-Oct. 2019.
16. Joseph Choi and Kevin Butler. "Secure Multiparty Computation and Trusted Hardware: Examining Adoption Challenges and Opportunities". *Security and Communication Networks*, vol 2019, Article ID 1368905, 28 pages, April 2019.
17. Benjamin Mood and Kevin Butler. "PAL: A System for Optimizing Secure Function Evaluation in Mobile Devices". *Journal of Information Security and Applications*, 40(2018), pg. 78-91, March 2018.
18. Bradley Reaves, Luis Vargas, Nolen Scaife, Dave (Jing) Tian, Logan Blue, Patrick Traynor, and Kevin Butler. "Characterizing the Security of the SMS Ecosystem with Public Gateways". *ACM Transactions on Privacy and Security*, 22(1), Article 2, January 2018.
19. Nolen Scaife, Patrick Traynor, and Kevin Butler. "Making Sense of the Ransomware Mess (and planning a sensible path forward)". *IEEE Potentials*, 36(6), pg. 28-31, Nov/Dec. 2017.
20. Dave (Jing) Tian, Kevin R. B. Butler, Joseph Choi, Patrick D. McDaniel, and Padma Krishnaswamy. "Securing ARP/NDP From the Ground Up." *IEEE Transactions on Information Forensics and Security*, 12(9), pg. 2131-2143, September 2017.
21. Adam Bates, Dave (Jing) Tian, Grant Hernandez, Thomas Moyer, Kevin R. B. Butler, and Trent Jaeger. "Taming the Costs of Trustworthy Provenance through Policy Reduction." *ACM Transactions on Internet Technology*, 17(4), Article 34, September 2017.
22. Bradley Reaves, Jasmine Bowers, Nolen Scaife, Adam Bates, Arnav Bhartiya, Patrick Traynor, and Kevin Butler. "Mo(bile) Money, Mo(bile) Problems: Analysis of Branchless Banking Applications". *ACM Transactions on Privacy and Security*, 20(3), Article 11, August 2017.
23. Bradley Reaves, Jasmine Bowers, Sigmund Albert Gorski III, Rahul Bobate, Raymond Cho, Hi-

- ranava Sas, Sharique Hussain, Hamza Karachiwala, Nolen Scaife, Byron Wright, Kevin Butler, William Enck, and Patrick Traynor. “*droid: Assessment and Evaluation of Android Application Analysis Tools”. *ACM Computing Surveys*, 49(3), Article 55, November 2016.
24. Henry Carter, Benjamin Mood, Patrick Traynor, and Kevin Butler. “Outsourcing Secure Two-Party Computation as a Black Box”. *Security and Communication Networks*, 9(14), pg. 2261-2275, September 2016.
 25. Henry Carter, Benjamin Mood, Patrick Traynor, and Kevin Butler. “Secure Outsourced Garbled Circuit Evaluation for Mobile Devices.” *Journal of Computer Security*, 24(2), pg. 137-180, 2016.
 26. Adam Bates, Kevin Butler, Micah Sherr, Clay Shields, Patrick Traynor, and Dan Wallach. “Accountable Wiretapping -or- I Know That You Can Hear Me Now”. *Journal of Computer Security*, 23 (2015), pg. 167-195, 2015.
 27. Adam Bates, Benjamin Mood, Joe Pletcher, Hannah Pruse, Masoud Valafar, and Kevin Butler. “On Detecting Co-Resident Cloud Instances Using Network Flow Watermarking Techniques”. *International Journal of Information Security*, 13(2), pg. 171-189, April 2014.
 28. Thomas Moyer, Kevin Butler, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. “Scalable Web Content Attestation”. *IEEE Transactions on Computers*, 61((5), pg. 686-699, May 2012.
 29. Kevin Butler, Stephen McLaughlin, Thomas Moyer, and Patrick McDaniel. “New Security Architectures Based on Emerging Disk Functionality”. *IEEE Security and Privacy*, 8(5), pg. 34-31, Sept./Oct. 2010.
 30. Kevin Butler, Toni Farley, Patrick McDaniel, and Jennifer Rexford. “A Survey of BGP Security Issues and Solutions”. *Proceedings of the IEEE*, 98(1), pg. 100-122, January 2010.
 31. Patrick Traynor, Kevin Butler, William Enck, Kevin Borders, and Patrick McDaniel. “malnets: Large-Scale Malicious Networks via Compromised Wireless Access Points”. *Journal of Security and Communication Networks (SCN)*. 2009.
 32. Kevin Butler, Sunam Ryu, Patrick Traynor, and Patrick McDaniel. “Leveraging Identity-based Cryptography for Node ID Assignment in Structured P2P Systems”. *IEEE Transactions on Parallel and Distributed Systems*, 20(12), pg. 1803-1815, December 2009.
 33. Patrick McDaniel, William Aiello, Kevin Butler, and John Ioannidis, Origin Authentication in Interdomain Routing. *Computer Networks*, 50(16), pg. 2953-2980, 14 November 2006.

Conference Publications

Top-4 Security Conferences

34. Nathaniel Bennett, Tyler Tucker, Carson Stillman, William Enck, Patrick Traynor, and Kevin Butler. “Fizzler: A Framework for Deterministic and Reproducible Network Fuzzing.” *47th IEEE Symposium on Security and Privacy (Oakland’26)*, San Francisco, CA, USA, May 2026.
35. Seth Layton, Bernardo B. P. Medeiros, Kevin Butler, and Patrick Traynor. “AI Wrote My Paper and All I Got Was This False Negative: Measuring the Efficacy of Commercial AI Text Detectors.” *47th IEEE Symposium on Security and Privacy (Oakland’26)*, San Francisco, CA, USA, May 2026.
36. Weidong Zhu, Carson Stillman, Sara Rampazzi, and Kevin Butler. “Enabling Secure and Efficient

- Data Loss Prevention with a Retention-aware Versioning SSD.” *32nd ACM Conference on Computer and Communication Security (CCS’25)*, Taipei, Taiwan, October 2025. (Acceptance Rate: 14.4%)
37. Daniel Olszewski, Tyler Tucker, Kevin Butler, and Patrick Traynor. “SoK: Towards a Unified Approach to Applied Replicability for Computer Security.” *34th USENIX Security Symposium (Security’25)*, Seattle, WA, USA, August 2025. (Acceptance Rate: 17.1%)
 38. Cassidy Gibson, Daniel Olszewski, Natalie Grace Brigham, Anna Crowder, Kevin Butler, Patrick Traynor, Elissa M. Redmiles, and Tadayoshi Kohno. “Analyzing the AI Nudification Application Ecosystem.” *34th USENIX Security Symposium (Security’25)*, Seattle, WA, USA, August 2025. **Internet Defense Prize Runner Up Award. Distinguished Paper Honorable Mention.** (Acceptance Rate: 17.1%.)
 39. Anna Crowder, Allison Lu, Kevin Childs, Carson Stillman, Patrick Traynor, and Kevin Butler. “Data to Infinity and Beyond: Examining Data Sharing and Usage Practices in the Computer Security Community.” *46th IEEE Symposium on Security and Privacy (Oakland’25)*, San Francisco, CA, USA, May 2025. (Acceptance Rate: 14.8%)
 40. Magdalena Pasternak, Kevin Warren, Daniel Olszewski, Susan Nitttrouer, Patrick Traynor, and Kevin Butler. “Characterizing the Impact of Audio Deepfakes in the Presence of Cochlear Implant Simulated Audio.” *32nd ISOC Symposium on Network and Distributed System Security (NDSS’25)*, San Diego, CA, USA, February 2025. (Acceptance Rate: 16.1%.)
 41. Tyler Tucker, Nathaniel Bennett, Martin Kotuliak, Simon Erni, Srdjan Capkun, Kevin Butler, and Patrick Traynor. “Detecting IMSI-Catchers by Characterizing Identity Exposing Messages in Cellular Traffic.” *32nd ISOC Symposium on Network and Distributed System Security (NDSS’25)*, San Diego, CA, USA, February 2025. (Acceptance Rate: 16.1%.)
 42. Kevin Childs, Cassidy Gibson, Anna Crowder, Kevin Warren, Carson Stillman, Elissa M. Redmiles, Eakta Jain, Patrick Traynor, and Kevin R. B. Butler. ““I Had Sort of a Sense that I was Always Being Watched...Since I Was”: Examining Interpersonal Discomfort From Continuous Location-Sharing Applications.” *31st ACM Conference on Computer and Communications Security (CCS’24)*, Salt Lake City, UT, USA, October 2024. (Acceptance rate: 16.9%.)
 43. Nathaniel Bennett, Weidong Zhu, Benjamin Simon, Ryon Kennedy, William Enck, Patrick Traynor, and Kevin R. B. Butler. “RANsacked: A Domain-Informed Approach for Fuzzing LTE and 5G RAN-Core Interfaces.” *31st ACM Conference on Computer and Communications Security (CCS’24)*, Salt Lake City, UT, USA, October 2024. (Acceptance rate: 16.9%.)
 44. Kevin Warren, Tyler Tucker, Anna Crowder, Daniel Olszewski, Allison Lu, Caroline Fedele, Magdalena Pasternak, Seth Layton, Kevin Butler, Carrie Gates, and Patrick Traynor. ““Better Be Computer Or I’m Dumb”: A Large-Scale Evaluation of Humans as Audio Deepfake Detectors.” *31st ACM Conference on Computer and Communications Security (CCS’24)* Salt Lake City, UT, USA, November 2024. **Distinguished Paper Award.** (Acceptance rate: 16.9%.)
 45. Seth Layton, Tyler Tucker, Daniel Olszewski, Kevin Warren, Carrie Gates, Kevin Butler, and Patrick Traynor. “SoK: The Good, The Bad, and The Unbalanced: Measuring Structural Limitations of Current Deepfake Datasets”. *33rd USENIX Security Symposium (Security’24)*, Philadelphia, PA, USA, August 2024. (Acceptance rate: 17.6%)
 46. Jennifer Sheldon, Weidong Zhu, Adnan Abdullah, Sri Hrushikesh Varma Bhupathiraju, Takeshi Sugawara, Kevin Butler, Md Jahidul Islam, and Sara Rampazzi. “AquaSonic: Acoustic Manipula-

- tion of Underwater Data Center Operations and Resource Management”. *45th IEEE Symposium on Security and Privacy (Oakland’24)*, San Francisco, CA, USA, May 2024. (Acceptance rate: 17.8%)
47. Daniel Olszewski, Allison Lu, Carson Stillman, Kevin Warren, Cole Kitroser, Alejandro Pascual, Divyajyoti Ukirde, Kevin Butler, and Patrick Traynor. ““Get in Researchers; We’re Measuring Reproducibility”: A Reproducibility Study of machine Learning Papers in Tier 1 Security Conferences”. *30th ACM Conference on Computer and Communications Security (CCS’23)*, Copenhagen, Denmark, November 2023. Acceptance rate: 19.2%.
 48. Kyungtae Kim, Sungwoo Kim, Kevin Butler, Antonio Bianchi, and Dave (Jing) Tian. “Fuzz The Power: Dual-role State Guided Black-box Fuzzing for USB Power Delivery”. *32nd USENIX Security Symposium (Security’23)*, Anaheim, CA, USA, August 2023. Acceptance rate: 29%.
 49. Yazhou Tu, Liqun Shen, Md Imran Hossen, Sara Rampazzi, Kevin Butler, and Xiali Hei. “Auditory Eyesight: Demystifying μ s-Precision Keystroke Tracking Attacks on Unconstrained Keyboard Inputs”. *32nd USENIX Security Symposium (Security’23)*, Anaheim, CA, USA, August 2023. Acceptance rate: 29%.
 50. Yan Long, Pirouz Naghavi, Blas Kojusner, Kevin Butler, Sara Rampazzi, and Kevin Fu. “Side eye: Characterizing the Limits of POV Acoustic Eavesdropping from Smartphone Cameras with Rolling Shutters and Movable Lenses”. *44th IEEE Symposium on Security and Privacy (Oakland’23)*, San Francisco, CA, USA, May 2023. Acceptance rate: 17.1%.
 51. Tyler Tucker, Hunter Searle, Kevin Butler, and Patrick Traynor. “Blue’s Clues: Practical Discovery of Non-Discoverable Bluetooth Devices”. *44th IEEE Symposium on Security and Privacy (Oakland’23)*, San Francisco, CA, USA, May 2023. Acceptance rate: 17.1%.
 52. Logan Blue, Kevin Warren, Hadi Abdullah, Cassidy Gibson, Luis Vargas, Jessica O’Dell, Kevin Butler, and Patrick Traynor. “Who Are You (I Really Wanna Know)?” *31st USENIX Security Symposium (Security’22)*, Boston, MA, USA, Aug 2022. Acceptance rate: 18.1%.
 53. Kyungtae Kim, Taegyu Kim, Ertza Warriach, Byoungyoung Lee, Kevin Butler, Antonio Bianchi, and Dave (Jing) Tian. “FuzzUSB: Hybrid Stateful Fuzzing of USB Gadget Stacks.” *43rd IEEE Symposium on Security and Privacy (Oakland’22)*, San Francisco, CA, USA, May 2022. Acceptance rate: 14.5%.
 54. Grant Hernandez, Marius Muench, Dominik Maier, Alyssa Milburn, Shinjo Park, Tobias Scharnowski, Tyler Tucker, Patrick Traynor, and Kevin Butler. “FirmWire: Transparent Dynamic Analysis for Cellular Baseband Firmware.” *2022 ISOC Network and Distributed System Security Symposium (NDSS’22)*, San Diego, CA, USA, April 2022. Acceptance rate: 16.2%.
 55. Grant Hernandez, Dave (Jing) Tian, Anurag Yadav, Byron J. Williams, and Kevin Butler. “Big-MAC: Fine-Grained Policy Analysis of Android Firmware.” *29th USENIX Security Symposium (Security’20)*, Boston, MA, USA, August 2020. (Acceptance rate: 16.1%.)
 56. Dave (Jing) Tian, Grant Hernandez, Joseph Choi, Vanessa Frost, Peter Johnson, and Kevin Butler. “LBM: A Security Framework for Peripherals within the Linux Kernel.” *40th IEEE Symposium on Security and Privacy (Oakland’19)*, San Francisco, CA, USA, May 2019. (Acceptance rate=12.0%.)
 57. Luis Vargas, Logan Blue, Vanessa Frost, Christopher Patton, Nolen Scaife, Kevin Butler, and Patrick Traynor. “Digital Healthcare-Associated Infection Analysis of a Major Multi-Campus Hospital System.” *26th ISOC Network and Distributed System Security Symposium (NDSS’19)*, San Diego, CA, USA, February 2019. (Acceptance rate=17.1%)

58. Hadi Abdullah, Washington Garcia, Christian Peeters, Patrick Traynor, Kevin Butler, and Joseph Wilson. "Practical Hidden Voice Attacks against Speech and Speaker Recognition Systems." *26th ISOC Network and Distributed System Security Symposium (NDSS'19)*, San Diego, CA, USA, February 2019. (Acceptance rate=17.1%)
59. Luis Vargas, Gyan Hazarika, Rachel Culpepper, Kevin Butler, Thomas Shrimpton, Doug Szjada, and Patrick Traynor. "Mitigating Risk while Complying with Data Retention Laws." *25th ACM Conference on Computer and Communications Security (CCS'18)*, Toronto, ON, Canada, October 2018. (Acceptance rate=17.0%)
60. Dave (Jing) Tian, Grant Hernandez, Joseph Choi, Vanessa Frost, Christie Ruales, Patrick Traynor, Hayawardh Vijaykumar, Lee Harrison, Amir Rahmati, Mike Grace, and Kevin Butler. "ATtention Spanned: Comprehensive Vulnerability Analysis of AT Commands Within the Android Ecosystem." *27th USENIX Security Symposium (Security'18)*, Baltimore, MD, USA, August 2018. (Acceptance rate=19.1%)
61. Dave (Jing) Tian, Nolen Scaife, Deepak Kumar, Michael Bailey, Adam Bates, and Kevin Butler. "SoK: "Plug & Pray" Today – Understanding USB Insecurity in Versions 1 through C." *2018 IEEE Symposium on Security and Privacy (Oakland'18)*, San Francisco, CA, USA, May 2018. *Nominated for Distinguished Paper Award.* (Acceptance rate=11.5%)
62. Christian Peeters, Hadi Abdullah, Nolen Scaife, Jasmine Bowers, Patrick Traynor, Bradley Reaves, and Kevin Butler. "Sonar: Detecting SS7 Redirection Attacks Via Call Audio-Based Distance Bounding." *2018 IEEE Symposium on Security and Privacy (Oakland'18)*, San Francisco, CA, USA, May 2018. (Acceptance rate=11.5%)
63. Grant Hernandez, Farhaan Fowze, Dave (Jing) Tian, Tuba Yavuz, and Kevin Butler. "FirmUSB: Vetting USB Device Firmware using Domain Informed Symbolic Execution." *24th ACM Conference on Computer and Communications Security (CCS'17)*, Dallas, TX, USA October 2017. (Acceptance rate=18.1%.)
64. Dave (Jing) Tian, Adam Bates, Kevin Butler, and Raju Rangaswami. "ProvUSB: Block-level Provenance-Based Data Protection for USB Storage Devices." *23rd ACM Conference on Computer and Communications Security (CCS'16)*, Vienna, Austria, October 2016. (Acceptance rate=16.5%.)
65. Dave (Jing) Tian, Nolen Scaife, Adam Bates, Kevin Butler, and Patrick Traynor. "Making USB Great Again with USBFILTER". *25th USENIX Security Symposium (Security'16)*, Austin, TX, USA, August 2016. (Acceptance rate=15.5%.)
66. Bradley Reaves, Dave Tian, Nolen Scaife, Logan Blue, Patrick Traynor, and Kevin Butler. "Sending out an SMS: Characterizing the Security of the SMS Ecosystem with Public Gateways". *2016 IEEE Symposium on Security and Privacy (Oakland'16)*, San Jose, CA, USA, May 2016. (Acceptance rate=13.3%.)
67. Adam Bates, Dave Tian, Kevin Butler, and Thomas Moyer. "Trustworthy Whole-System Provenance for the Linux Kernel". *24th USENIX Security Symposium (Security'15)*, Washington, DC, USA, August 2015. (Acceptance rate=15.7%)
68. Bradley Reaves, Nolen Scaife, Adam Bates, Patrick Traynor, and Kevin Butler. "Mo(bile) Money, Mo(bile) Problems: Analysis of Branchless Banking Applications in the Developing World". *24th USENIX Security Symposium (Security'15)*, Washington, DC, USA, August 2015. (Acceptance rate=15.7%)

69. Benjamin Mood, Debayan Gupta, Kevin Butler, and Joan Feigenbaum. "Reuse It Or Lose It: More Efficient Secure Computation Through Reuse of Encrypted Values". *21st ACM Conference on Computer and Communications Security (CCS'14)*, Scottsdale, AZ, USA, November 2014. (Acceptance rate=19%)
70. Adam Bates, Joe Pletcher, Tyler Nichols, Braden Hollemback, Dave Tian, Abdulrahman Alkhelaifi, and Kevin Butler. "Securing SSL Certificate Verification through Dynamic Linking". *21st ACM Conference on Computer and Communications Security (CCS'14)*, Scottsdale, AZ, USA, November 2014. (Acceptance rate=19%)
71. Adam Bates, Ryan Leonard, Hannah Pruse, Daniel Lowd, and Kevin Butler. "Leveraging USB to Establish Host Identity Using Commodity Devices." *21st ISOC Network and Distributed System Security Symposium (NDSS'14)*, San Diego, CA, USA, February 2014. (Acceptance rate=18.6%)
72. Henry Carter, Benjamin Mood, Patrick Traynor, and Kevin Butler. "Secure Outsourced Garbled Circuit Evaluation for Mobile Devices". *22nd USENIX Security Symposium (Security'13)*, Washington, DC, USA, August 2013. (Acceptance rate=16.2%)
73. Benjamin Kreuter, ahbi shelat, Benjamin Mood, and Kevin Butler. "PCF: A Portable Circuit Format For Scalable Two-Party Secure Computation". *22nd USENIX Security Symposium (Security'13)*, Washington, DC, USA, August 2013.(Acceptance rate=16.2%.)
74. Adam Bates, Kevin Butler, Micah Sherr, Clay Shields, Patrick Traynor, and Dan Wallach. "Accountable Wiretapping -or- I Know That You Can Hear Me Now". *19th ISOC Network and Distributed System Security Symposium (NDSS'12)*, San Diego, CA, USA. February 2012. (Acceptance rate=17.6%)
75. Kevin Butler, Stephen McLaughlin, and Patrick McDaniel. Rootkit Resistant Disks. *15th ACM Conference on Computer and Communications Security (CCS'08)*, Alexandria, VA, USA. October 2008. (Acceptance rate=18.1%)
76. Patrick Traynor, Kevin Butler, William Enck, and Patrick McDaniel. Realizing Massive-Scale Conditional Access Systems Through Attribute-Based Cryptosystems. *15th Annual Network and Distributed System Security Symposium (NDSS'08)*, San Diego, CA, USA. February 2008. (Acceptance rate=17.8%)
77. Kevin Butler, William Aiello, and Patrick McDaniel. Optimizing BGP Security by Exploiting Path Stability. *13th ACM Conference on Computer and Communications Security (CCS'06)*, Alexandria, VA, USA, November 2006. (Acceptance rate=14.8%)

Other Refereed Conference Publications

78. Weidong Zhu, Wenxuan Bao, Vincent Bindschaedler, Sara Rampazzi, and Kevin Butler. "Enabling Plausible Deniability in Flash-based Storage through Data Permutation." *Proceedings of the 2025 Annual Computer Security Applications Conference (ACSAC 2025)*, Honolulu, HI, USA, December 2025.
79. Carson Stillman, Jennifer Sheldon, Ian Garrett, Patrick Traynor, Ryan Gerdes, Sara Rampazzi, and Kevin Butler. "EM-Flow: Advanced Electromagnetic Control Flow Verification for Embedded Systems." *Proceedings of the 2025 Annual Computer Security Applications Conference (ACSAC 2025)*, Honolulu, HI, USA, December 2025.

80. Kevin Childs, Mollie Brewer, Spencer Thomas, Celeste Wilkins, Jennifer A. Nichols, Kristy Elizabeth Boyer and Kevin R. B. Butler. "Mapping the Flow of Information from Continuous Wearables: Insights from Elite Collegiate Athletes in the United States." *Proceedings of the 2025 ACM Conference on Human-Computer Interaction and Sports (SportsHCI 2025)*, Twente, The Netherlands, November 2025.
81. Daniel Olszewski, Allison Lu, Anna Crowder, Nathaniel Bennett, Seth Layton, Sri Hrushikesh Varma Bhupathiraju, Tyler Tucker, Siddhant Kalgutkar, Hunter Ver Helst, Carson Stillman, Kevin Butler, Sara Rampazzi, and Patrick Traynor. "Reproducibility in Applied Security Conferences: An 11-Year Review on Artifacts and Evaluation Committees." *Proceedings of the 2025 ACM Conference on Reproducibility and Replicability (REP 2025)*, Vancouver, BC, Canada, July 2025. **Best Paper Award.**
82. Mollie Brewer, Kevin Childs, Spencer Thomas, Celeste Wilkins, Kristy Elizabeth Boyer, Jennifer A. Nichols, Kevin R. B. Butler, Garrett F. Beatty, and Daniel P. Ferris. "Coach, Data Analyst, and Protector: Exploring Data Practices of Collegiate Coaching Staff." *Proceedings of the 2025 ACM CHI Conference on Human Factors in Computing Systems (CHI'25)*, Yokohama, Japan, April 2025. (Acceptance rate=24.9%)
83. Anna Crowder, Daniel Olszewski, Patrick Traynor, and Kevin R. B. Butler. "I Can Show You the World (of Censorship): Extracting Insights from Censorship Measurement Data Using Statistical Techniques." *Proceedings of the 40th Annual Computer Security Applications Conference (ACSAC 2024)*, Honolulu, HI, December 2024. (Acceptance rate = 21.8%.)
84. Weidong Zhu, Grant Hernandez, Washington Garcia, Dave (Jing) Tian, Sara Rampazzi, and Kevin Butler. "Minding the Semantic Gap for Effective Storage-Based Ransomware Defense." *Proceedings of the 38th International Conference on Massive Storage Systems and Technology (MSST)*, Santa Clara, CA, USA, June 2024.
85. Seaver Thorn, K. Virgil English, Kevin Butler, and William Enck. "5GAC-Analyzer: Identifying Over-Privilege Between 5G Core Network Functions." *Proceedings of the ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec)*, Seoul, Korea, May 2024. (Acceptance rate: 29%)
86. K. Virgil English, Nathaniel Bennett, Seaver Thorn, Kevin Butler, William Enck, and Patrick Traynor. "Examining Cryptography and Randomness Failures in Open-Source Cellular Cores." *Proceedings of the ACM Conference on Data and Application Security and Privacy (CODASPY)*, Porto, Portugal, June 2024. **Best paper award.** (Acceptance rate: 19%)
87. Caroline Fedele, Christopher Petersen, Tyler Lovelly, and Kevin Butler. "Protecting Satellite Proximity Operations via Secure Multi-Party Computation." *American Institute of Aeronautics and Astronautics (AIAA) SciTech Forum*, Orlando, FL, USA, January 2024.
88. Christian Peeters, Tyler Tucker, Anushri Jain, Kevin Butler, and Patrick Traynor. "LeopardSeal: Detecting Call Interception via Audio Rogue Base Stations". *21st ACM International Conference on Mobile Systems, Applications, and Services (MobiSys'23)*, Helsinki, Finland, June 2023. Acceptance rate: 20.7%
89. Washington Garcia, Pin-Yu Chen, Hamilton Scott Clouse, Somesh Jha, and Kevin Butler. "Less is More: Dimension Reduction Finds On-Manifold Adversarial Examples in Hard-Label Attacks". *IEEE Conference on Secure and Trustworthy Machine Learning (SatML 2023)*, Raleigh, NC, USA,

February 2023. *Acceptance rate: 25.3%*

90. Daniel Olszewski, Weidong Zhu, Sandeep Sathyanarayana, Kevin Butler, and Patrick Traynor. "HallMonitor: A Framework for Identifying Network Policy Violations in Software". *2022 IEEE Conference on Communications and Network Security (CNS 2022)*, Austin, TX, USA, October 2022. (*Acceptance rate =35%.*)
91. Cassidy Gibson, Vanessa Frost, Katie Platt, Washington Garcia, Luis Vargas, Sara Rampazzi, Vincent Bindschaedler, Patrick Traynor, and Kevin Butler. "Analyzing the Monetization Ecosystem of Stalkerware." *22nd Privacy Enhancing Technologies Symposium (PETS 2022)*, Sydney, Australia, July 2022. (*Acceptance rate: 24%*)
92. Washington Garcia, Scott Clouse, and Kevin Butler. "Disentangling Categorization in Multi-agent Emergent Communication." *2022 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2022)*, Seattle, WA, USA, July 2022. *Acceptance rate: 21%*
93. Shantanu Ghosh, Zheng Feng, Kevin Butler, and Mattia Proserpi. "DR-VIDAL: Doubly Robust Variational Information-theoretic Deep Adversarial Learning for Counterfactual Prediction and Treatment Effect Estimation." *2022 American Medical Informatics Association Annual Symposium (AMIA 2022)*, Washington, DC, USA, November 2022.
94. Brendan David-John, Kevin Butler, and Eakta Jain. "For Your Eyes Only: Privacy-Preserving Eye-Tracking Datasets." *14th ACM Symposium on Eye Tracking Research and Applications (ETRA 2022)* Seattle, WA, USA, June 2022. (*Acceptance rate: 42%*)
95. Mounir Elbharabawy, Blas Kojusner, Mohammad Mannan, Kevin Butler, Byron Williams, and Amr Youssef. "SAUSAGE: Security Analysis of Unix domain Socket Usage in Android." *7th IEEE European Symposium on Security and Privacy (Euro S&P'22)*, Genoa, Italy, June 2022. (*Acceptance rate TBD.*) **Best paper award finalist.**
96. Arslan Khan, Joseph Choi, Dave (Jing) Tian, Tyler Ward, Kevin Butler, Patrick Traynor, John M. Shea and Tan Wong. "Privacy-Preserving Localization Using Enclaves." *12th IEEE Ubiquitous Computing, Electronics and Mobile Communication Conference (IEEE UEMCON 2021)*, Virtual Conference, December 2021.
97. Washington Garcia, Animesh Chhotaray, Joseph Choi, Suman Adari, Kevin Butler, and Somesh Jha. "Brittle Features of Device Authentication." *11th ACM Conference on Data and Application Security and Privacy (CODASPY'21)*, virtual event, April 2021. (*Acceptance rate: 24.5%.*)
98. Joseph Choi, Dave (Jing) Tian, Grant Hernandez, Christopher Patton, Benjamin Mood, Thomas Shrimpton, Patrick Traynor, and Kevin Butler. "A Hybrid Approach to Secure Function Evaluation using SGX." *14th ACM ASIA Conference on Computer and Communications Security (ASIACCS'19)*, Auckland, New Zealand, July 2019. (*Acceptance rate [full papers]: 17%.*)
99. Vanessa Frost, Dave (Jing) Tian, Christie Ruales, Patrick Traynor, and Kevin Butler. "Examining DES-based Cipher Suite Support within the TLS Ecosystem." *14th ACM ASIA Conference on Computer and Communications Security (ASIACCS'19)*, Auckland, New Zealand, July 2019. (*Acceptance rate: 22%.*)
100. Jasmine Bowers, Imani Sherman, Kevin Butler, and Patrick Traynor. "Characterizing Security and Privacy Practices in Emerging Digital Credit Applications." *12th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec'19)*, Miami, FL, USA, May 2019. (*Acceptance rate=25.5%*)

101. Dave (Jing) Tian, Joseph Choi, Grant Hernandez, Patrick Traynor, and Kevin Butler. "A Practical Intel SGX Setting for Linux Containers in the Cloud." *9th ACM Conference on Data and Application Security and Privacy (CODASPY'19)*, Dallas, TX, USA, March 2019. (Acceptance rate=23.5%)
102. Lianying Zhao, Joseph Choi, Didem Demirag, Kevin Butler, Mohammad Mannan, Erman Ayday, and Jeremy Clark. One-Time Programs Made Practical. *23rd International Conference on Financial Cryptography and Data Security (FC'19)*, St. Kitts, February 2019. (Acceptance rate=18.5%)
103. Robert Karam, Tamzidul Hoque, Kevin Butler, and Swarup Bhunia. Mixed-Granular Architectural Diversity for Device Security in the Internet of Things. *Asian Hardware Oriented Security and Trust Symposium (AsianHOST 2017)*, Beijing, China, October 2017.
104. Tyler Ward, Joseph Choi, Kevin Butler, John M. Shea, Patrick Traynor, and Tan Wong. Privacy Preserving Localization Using a Distributed Particle Filtering Protocol. *IEEE MILCOM*, Baltimore, MD, October 2017.
105. Jasmine Bowers, Bradley Reaves, Imani N. Sherman, Patrick Traynor, and Kevin Butler. Regulators, Mount Up! Analysis of Privacy Policies for Mobile Money Services. *13th Symposium on Usable Privacy and Security (SOUPS 2017)*, Santa Clara, CA, July 2017. (Acceptance rate=26.5%)
106. Adam Bates, Wajih Ul Hassan, Kevin Butler, Alin Dobra, Brad Reaves, Patrick Cable, Thomas Moyer, and Nabil Schear. Transparent Web Service Auditing via Network Provenance Functions. *26th World Wide Web Conference (WWW 2017)*, Perth, Australia, April 2017. (Acceptance rate=17.0%)
107. Benjamin Mood, Debayan Gupta, Henry Carter, Kevin Butler, and Patrick Traynor. "Frigate: A Validated, Extensible, and Efficient Compiler and Interpreter for Secure Computation". *1st IEEE European Symposium on Security and Privacy (Euro S&P 2016)*, Saarbrücken, Germany, March 2016. (Acceptance rate=17.3%.)
108. Sriharsha Etigowni, Dave (Jing) Tian, Grant Hernandez, Saman Zonouz, and Kevin Butler. CPAC: Securing Critical Infrastructure with Cyber-Physical Access Control. *32nd Annual Computer Security Applications Conference*, Los Angeles, CA, USA, December 2016. (Acceptance rate=22.8%)
109. Thomas Moyer, Patrick Cable, Karishma Chadha, Robert Cunningham, Nabil Schear, Warren Smith, Adam Bates, Kevin Butler, Frank Capobianco, and Trent Jaeger. "Leveraging Data Provenance to Enhance Cyber Resilience". *1st IEEE Cybersecurity Development Conference (SecDev 2016)*, Boston, MA, November 2016. (Acceptance rate=52.2%.)
110. Bradley Reaves, Dave Tian, Nolen Scaife, Logan Blue, Patrick Traynor, and Kevin Butler. "Detecting SMS Spam in the Age of Legitimate Bulk Messaging". *9th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec'16)*, Darmstadt, Germany, July 2016. (Acceptance rate=35%.)
111. Nolen Scaife, Henry Carter, Patrick Traynor, and Kevin Butler. "CryptoLock (and Drop It): Stopping Ransomware Attacks on User Data". *36th IEEE International Conference on Distributed Computing Systems (ICDCS 2016)*, Nara, Japan, June 2016. (Acceptance rate=17.6%)
112. Henry Carter, Benjamin Mood, Patrick Traynor, and Kevin Butler. "Outsourcing Secure Two-Party Computation as a Black Box". *14th International Conference on Cryptology and Network Security (CANS 2015)*, Marrakesh, Morocco, December 2015. (Acceptance rate=52.9%.)
113. Dave Tian, Adam Bates, and Kevin Butler. "Defending Against Malicious USB Firmware with GoodUSB". *31st Annual Computer Security Applications Conference (ACSAC 2015)*, Los Angeles,

CA, USA, December 2015. (*Acceptance rate=24.4%.*)

114. Ethan Shernan, Henry Carter, Jing (Dave) Tian, Patrick Traynor, and Kevin Butler. “More Guidelines Than Rules: CSRF Vulnerabilities from Noncompliant OAuth 2.0 Implementations”. *12th Conference on Detection of Intrusions and Malware and Vulnerability Assessment (DIMVA 2015)*, Milano, Italy, July 2015. (*Acceptance rate=22.7%*)
115. Jing (Dave) Tian, Kevin Butler, Patrick McDaniel, and Padma Krishnaswamy. “Securing ARP From the Ground Up”. *5th ACM Conference on Data and Application Security and Privacy (CODASPY 2015)*, San Antonio, TX, USA, March 2015. (*Acceptance rate=33.3%*)
116. Adam Bates, Joe Pletcher, Tyler Nichols, Braden Hollembaek, and Kevin Butler. “Forced Perspectives: Evaluating an SSL Trust Enhancement at Scale”. *2014 ACM Internet Measurement Conference (IMC’14)*, Vancouver, BC, Canada, November 2014. (*Acceptance rate=22.9%*)
117. Adam Bates, Benjamin Mood, Masoud Valafar, and Kevin Butler. “Towards Secure Provenance-Based Access Control in Cloud Environments”. *3rd ACM Conference on Data and Application Security and Privacy (CODASPY 2013)*, San Antonio, TX, USA, February 2013. (*Acceptance rate=31.8%*)
118. Vasant Tendulkar, Joe Pletcher, Ashwin Shashidharan, Ryan Snyder, Kevin Butler, and William Enck. “Abusing Cloud-based Browsers for Fun and Profit”. *28th Annual Computer Security Applications Conference (ACSAC 2012)*, Orlando, FL, USA, December 2012. (*Acceptance rate=19.0%*)
119. Devin J. Pohly, Stephen McLaughlin, Patrick McDaniel, and Kevin Butler. “Hi-Fi: Collecting High-Fidelity Whole-System Provenance”. *28th Annual Computer Security Applications Conference (ACSAC 2012)*, Orlando, FL, USA, December 2012. (*Acceptance rate=19.0%*)
120. Benjamin Mood, Lara Letaw, and Kevin Butler. “Memory-Efficient Garbled Circuit Generation for Mobile Devices”. *16th IFCA International Conference on Financial Cryptography and Data Security (FC’12)*, Bonaire, February 2012. (*Acceptance rate=26.1%*)
121. Kevin Butler, Stephen McLaughlin, and Patrick McDaniel, “Kells: A Protection Framework for Portable Data”. *26th Annual Computer Security Applications Conference (ACSAC 2010)*, Austin, TX, USA, December 2010. (*Acceptance rate=16.3%*)
122. Machigar Ongtang, Kevin Butler, and Patrick McDaniel. “Porscha: Policy Oriented Secure Content Handling in Android.” *26th Annual Computer Security Applications Conference (ACSAC 2010)*, Austin, TX, USA, December 2010. (*Acceptance rate=16.3%*)
123. Kevin Butler, Stephen McLaughlin, and Patrick McDaniel. “Disk-Enabled Authenticated Encryption” (short paper). *26th IEEE Symposium on Massive Storage Systems and Technologies (MSST 2010)*, Incline Village, NV, USA, May 2010. (*Acceptance rate=45.5%.*)
124. Thomas Moyer, Kevin Butler, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. Scalable Web Content Attestation. *25th Annual Computer Security Applications Conference (ACSAC 2009)*, Honolulu, HI, USA. December 2009. (*Acceptance rate=19.0%.*)
125. William Enck, Kevin Butler, Thomas Richardson, Patrick McDaniel, and Adam Smith. Defending Against Attacks on Main Memory Persistence. *24th Annual Computer Security Applications Conference (ACSAC 2008)*, Anaheim, CA, USA. December 2008. (*Acceptance rate=24.3%*)
126. Dhananjay Bapat, Kevin Butler, and Patrick McDaniel. Towards Automatic Privilege Separation. *3rd International Conference on Information Systems Security (ICISS 2007)*, Delhi, India. December 2007. (*Acceptance rate=25.0%*)

127. Lisa Johansen, Kevin Butler, Michael Rowell, and Patrick McDaniel. Email Communities of Interest. *Fourth Conference on Email and Anti-Spam (CEAS 2007)*, Mountain View, CA, USA. August 2007. (Acceptance rate=19.0%.)
128. Anusha Sriraman, Kevin Butler, Patrick McDaniel, and Padma Raghavan. Analysis of the IPv4 Address Space Delegation Structure. *IEEE Symposium on Computers and Communications (ISCC'07)*, Aveiro, Portugal, July 2007. (Acceptance rate=40%.)
129. Sunam Ryu, Kevin Butler, Patrick Traynor, and Patrick McDaniel. Leveraging Identity-based Cryptography for Node ID Assignment in Structured P2P Systems. *3rd IEEE International Symposium on Security in Networks and Distributed Systems (SSNDS'07)*, Niagara Falls, ON, Canada, May 2007. (Acceptance rate=40%)
130. Kevin Butler, Patrick Traynor, William Enck, Jennifer Plasterr, and Patrick McDaniel. Privacy Preserving Web-Based Email. *2nd International Conference on Information Systems Security (ICISS 2006)*, Kolkata, India, December 2006. (Acceptance rate=30.4%)
131. Trent Jaeger, Kevin Butler, David King, Serge Hallyn, Joy Latten, and Xiolan Zhang. Leveraging IPsec for Mandatory Per-Packet Access Control. *2nd IEEE Communications Society/CreateNet International Conference on Security and Privacy in Communication Networks (SecureComm'06)*, August 2006. Baltimore, MD, USA. (Acceptance rate=25.4%.)
132. Kevin Butler and Patrick McDaniel, Understanding Mutable Internet Pathogens, or How I Learned to Stop Worrying and Love Parasitic Behavior. *1st International Conference on Information Systems Security (ICISS 2005)*, December 2005. Kolkata, India. (Invited paper.)

Peer-Reviewed Workshop Publications

133. Jennifer Sheldon, Weidong Zhu, Adnan Abdulla, Kevin Butler, Md Jahidul Islam, and Sara Ram-pazzi. "Position: Deep Note: Can Acoustic Interference Damage the Availability of Hard Disk Storage in Underwater Data Centers?" *15th ACM Workshop on Hot Topics in Storage and File Systems (Hot-Storage 2023)*, Boston, MA, USA, July 2023. **Best Paper Award.**
134. Brendan David-John, Diane Hosfelt, Kevin Butler, and Eakta Jain. "Let's SOUP Up XR: Collected thoughts from an IEEE VR workshop on privacy in mixed reality." *1st International Workshop on Security for XR and XR for Security (VR4Sec)*, in conjunction with SOUPS 2021, virtual event, August 2021.
135. Sushrut Shringarputale, Patrick McDaniel, Kevin Butler, and Thomas La Porta. "Co-residency Attacks on Containers are Real." *2020 ACM Cloud Computing Security Workshop (CCSW'20)*, Orlando, FL, USA, November 2020.
136. Suman Adari, Washington Garcia, and Kevin Butler. "Adversarial Video Captioning". *2019 Dependable and Secure Machine Learning Workshop (DSML'19)*, Portland, OR, USA, June 2019.
137. Siddhant Deshmukh, Henry Carter, Grant Hernandez, Patrick Traynor, and Kevin Butler. "Efficient and Secure Template Blinding for Biometric Authentication". *2nd IEEE Workshop on Security and Privacy in the Cloud (SPC 2016)*, Philadelphia, PA, USA, October 2016.
138. Debayan Gupta, Benjamin Mood, Joan Feigenbaum, Kevin Butler and Patrick Traynor. "Using Intel Software Guard Extensions for Efficient Two-Party Secure Function Evaluation." *2016 Workshop on Encrypted Computing and Applied Homomorphic Cryptography (WAHC'16)*, Barbados, February

2016.

139. Adam Bates, Kevin Butler, and Thomas Moyer. "Take Only What You Need: Leveraging Mandatory Access Control Policy to Reduce Provenance Storage Costs." *7th Annual Workshop on Theory and Practice of Provenance (TaPP'15)*, Edinburgh, Scotland, July 2015.
140. Adam Bates, Kevin Butler, Andreas Haeberlen, Micah Sherr, and Wenchao Zhou. "Let SDN Be Your Eyes: Secure Forensics in Data Center Networks." *NDSS Workshop on Security of Emerging Network Technologies (SENT)*, San Diego, CA, USA, February 2014.
141. Matt Bishop, Emily Rine Butler, Kevin Butler, Carrie Gates, and Steven Greenspan. "Forgive and Forget: Return to Obscurity". *New Security Paradigms Workshop (NSPW 2013)*, Banff, AB, Canada, September 2013.
142. Peter McKay, Bryan Clement, Sean Haverty, Elijah Newton, and Kevin Butler. "Read My Lips: Towards Use of the Microsoft Kinect as a Visual-Only Automatic Speech Recognizer." *2013 Workshop on Home Usable Privacy and Security (HUPS)*, Newcastle, UK, July 2013.
143. Adam Bates, Benjamin Mood, Joe Pletcher, Hannah Pruse, Masoud Valafar, and Kevin Butler. "Detecting Co-Residency with Active Traffic Analysis Techniques". *4th ACM Cloud Computing Security Workshop (CCSW 2012)*, Raleigh, NC, USA, October 2012. (Acceptance rate=12.0% for full papers.)
144. Lara Letaw, Joe Pletcher, and Kevin Butler. "Host Identification via USB Fingerprinting". *6th IEEE International Workshop on Systematic Approaches to Digital Forensics Engineering (SADFE 2011)*, Oakland, CA, USA, May 2011. (Acceptance rate=34.8%.)
145. Kevin Butler, William Enck, Harri Hursti, Stephen McLaughlin, Patrick Traynor, and Patrick McDaniel. Systemic Issues in the Hart InterCivic and Premier Voting Systems: Reflections Following Project EVEREST. *2008 USENIX/ACCURATE Electronic Voting Workshop (EVT'08)*, July 2008. San Jose, CA, USA. (Acceptance rate=44.1%)
146. Shiva Chaitanya, Kevin Butler, Anand Sivasubramaniam, Patrick McDaniel and Murali Vilayanur. Design, implementation and evaluation of security in iSCSI-based network storage systems. *2nd International Workshop on Storage Security and Survivability (StorageSS 2006)*, October 2006. Alexandria, VA, USA. (Acceptance rate=68%)
147. Patrick McDaniel, Kevin Butler, Stephen McLaughlin, Radu Sion, Erez Zadok, and Marianne Winslett. "Towards a Secure and Efficient System for End-to-End Provenance". *USENIX Workshop on Theory and Practice of Provenance (TaPP)*, February 2010. (Acceptance rate=68.8%)
148. Kevin Butler and Petros Efstathopoulos. U Can't Touch This: Block-Level Protection for Portable Storage. *International Workshop on Software Support for Portable Storage (IWSSPS 2009)*, October 2009. Grenoble, France.
149. Kevin Butler, Stephen McLaughlin, and Patrick McDaniel. Non-Volatile Memory and Disks: Avenues for Policy Architectures. *1st Computer Security Architectures Workshop (CSAW 2007)*, November 2007. Fairfax, VA, USA. (Acceptance rate=30%)
150. Kevin Butler and Patrick McDaniel, Testing Large Scale BGP Security in Replayable Network Environments. *DETER Community Workshop on Cyber Security Experimentation and Test*, June 2006. Arlington, VA, USA.
151. Sophie Qiu, Kevin Butler, and Patrick McDaniel, BGPRV: Retrieving and Processing BGP Data with Efficiency and Convenience. *DETER Community Workshop on Cyber Security Experimentation and*

Technical Reports

152. Kevin Butler, Sunny Consolvo, Katie Siek, Tammy Toscos, Pamela Wisniewski, Haley Griffin, Nazanin Andalibi, Rasa I. Arriaga, Beenish Moalla Chaudhry, Munmum De Choudhury, Jeremy Epstein, Oliver L. Haimson, Sharon Heung, Zaidat Ibrahim, Patrick Gage Kelley, Vera Khovanskaya, Aqueasha Martin-Hammond, Jessica McClearn, Vivian Genaro Motti, Chinasa T. Okolo, Jessica Pater, Wanda Pratt, Sydney Saubestre, Vincent M.B. Silenzio, Dhanaraj Thakur, Alexandra To, Emily Tseng, and Rebecca Umbach. Supporting At-Risk Users Through Responsible Computing. Washington, D.C.: Computing Research Association (CRA), October 2025. <http://cra.org/ccc/wp-content/uploads/2025/10/supporting-at-risk-users-through-responsible-computing.pdf>
153. Azim Ibragimov, Ethan Wilson, Kevin Butler, and Eakta Jain. “Toward Practical Privacy in XR: Empirical Analysis of Multimodal Anonymization Mechanisms.” *arXiv:2506.13882*, June 2025.
154. Michela Taufer, Rada Mihalcea, Matthew Turk, Dan Lopresti, Adam Wierman, Kevin Butler, Sven Koenig, David Danks, William Gropp, Manish Parashar, Yolanda Gil, Bill Regli, Rjmohan Rajaraman, David Jensen, Madya Bliss, and Mary Lou Maher. “Now More Than Ever, Foundational AI Research and Infrastructure Depends on the Federal Government.” Computing Community Consortium, Quadrennial White Paper, 2024.
155. Pamela Wisniewski, Kevin Butler, Katie Siek, Gabrielle Allen, Weisong Shi, Manish Parashar, Ufuk Topcu, and Haley Griffin. “Prioritizing Computing Research to Empower and Protect Vulnerable Populations.” Computing Community Consortium, Quadrennial White Paper, 2024.
156. Nadya Bliss, Kevin Butler, David Danks, Ufuk Topcu, and Matthew Turk. “Addressing the Unforeseen Harms of Technology.” Computing Community Consortium. http://cra.org/ccc/addressing_unforeseen_harms_of_technology_ccc_whitepaper, 2024.
157. Efe Bozkir, Süleyman Özdel, Mengdi Wang, Brendan David-John, Hong Gao, Kevin Butler, Eakta Jain, and Enkelejda Kasneci. “Eye-tracked Virtual Reality: A Comprehensive Survey on Methods and Privacy Challenges.” *arXiv:2305.14080*, May 2023.
158. Washington Garcia, Pin-Yu Chen, Somesh Jha, Scott Clouse, and Kevin Butler. “Hard-label Manifolds: Unexpected Advantages of Query Efficiency for Finding On-manifold Adversarial Examples.” *arXiv:2013.03325*, March 2021.
159. Kevin Butler. “Digital Financial Services security audit guideline.” Security, Infrastructure and Trust Working Group, Financial Inclusion Global Initiative, published by International Telecommunications Union (ITU), March 2021.
160. Kevin Butler and Vijay Mauree. “Digital Financial Services security assurance framework.” Security, Infrastructure and Trust Working Group, Financial Inclusion Global Initiative, published by International Telecommunications Union (ITU), January 2021. **Published as ITU Technical Recommendation ITU-T X.1150, March 2024.**
161. Washington Garcia, Joseph Choi, Suman Adari, Somesh Jha, and Kevin Butler. “Explainable Black-Box Attacks Against Model-based Authentication.” *arXiv:1810.00024*, September 2018.
162. Kevin Butler, Patrick Traynor, and Tiago Novais. “MM App Security Best Practices.” Official Doc-

ument MM.01, GSM Association, London, United Kingdom, June 2018.

163. Kevin Butler, Leon Perlman, Paul Makin, Henry Gerwitz, Patrick Traynor, Yury Grin, Evgeniy Bondarenko, and Richard Miller. "ITU-T Focus Group Digital Financial Services: Security Aspects of Digital Financial Services (DFS)." Focus Group Technical Report, International Telecommunications Union, Geneva, Switzerland, January 2017.
164. Adam Bates, Joe Pletcher, Tyler Nichols, Braden Hollembaek, and Kevin Butler. "Towards Usable System-Wide Trust Agility." Technical Report CIS-TR-2013-13, Department of Computer and Information Science, University of Oregon, Eugene, OR, October 2013.
165. Benjamin Mood and Kevin Butler. "Optimizing Secure Function Evaluation for Mobile Devices". Technical Report CIS-TR-2013-10, Department of Computer and Information Science, University of Oregon, Eugene, OR, September 2013.
166. Henry Carter, Benjamin Mood, Patrick Traynor, and Kevin Butler. "Secure Outsourced Garbled Circuit Evaluation for Mobile Devices". Technical Report GT-CS-12-09, College of Computing, Georgia Institute of Technology, Atlanta, GA, December 2012.
167. Kevin Butler and Petros Efstathopoulos. U Can't Touch This: Block-Level Protection for Portable Storage. Technical Report Symantec-SRL/MV2009-11, Symantec Research Labs, Mountain View, CA, June 2009.
168. Kevin Butler, Stephen McLaughlin, Thomas Moyer, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. Firma: Disk-Based Foundations for Trusted Operating Systems. Technical Report NAS-TR-0114-2009, Networking and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, May 2009.
169. Kevin Butler, Stephen McLaughlin, Thomas Moyer, Patrick McDaniel, and Trent Jaeger. Switch-Blade: Policy-Driven Disk Segmentation. Technical Report NAS-TR-0098-2008, Networking and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, November 2008.
170. P. McDaniel, K. Butler, W. Enck, H. Hursti, S. McLaughlin, P. Traynor, M. Blaze, A. Aviv, P. Cerny, S. Clark, E. Cronin, G. Shah, M. Sherr, G. Vigna, R. Kemmerer, D. Balzarotti, G. Banks, M. Cova, V. Felmetzger, W. Robertson, F. Valeur, J. Hall, and L. Quilter, EVEREST: Evaluation and Validation of Election-Related Equipment, Standards and Testing. Public Report, Ohio Secretary of State, December 2007.
171. Kevin Butler, Stephen McLaughlin, Patrick McDaniel, and Youngjae Kim. Autonomously Secure Disks. Technical Report NAS-TR-0072-2007, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, May 2007. (*Updated September 2007.*)
172. Lisa Johansen, Kevin Butler, William Enck, Patrick Traynor, and Patrick McDaniel. Grains of SANs: Building Storage Area Networks from Memory Spots. Technical Report NAS-TR-0060-2007, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, January 2007.
173. Luke St. Clair, Lisa Johansen, Kevin Butler, William Enck, Matthew Pirretti, Patrick Traynor, Patrick McDainel, and Trent Jaeger. Password Exhaustion: Predicting the End of Password Usefulness. Technical Report NAS-TR-0030-2006, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA,

May 2006. (Updated January 2007.)

Articles for Media

174. Patrick Traynor and Kevin Butler. “Mobile money in developing countries: study reveals security flaws in apps”. *The Guardian*. 24 September 2015. http://www.theguardian.com/global-development-professionals-network/2015/sep/24/mobile-money-apps-security-flaws-study-reveals?CMP=tw_t_gu

Patents and Applications

Patents

U.S. Patent 8,856,918, Host validation mechanism for preserving integrity of portable storage data. Petros Efstathopoulos, Bruce Montague, Dharmesh Shah, Kevin Butler. October 7, 2014.

U.S. Patent 10,685,114, Malware Detection Via Data Transformation Monitoring. Walter N. Scaife, Kevin Butler, Henry Carter, Patrick G. Traynor. June 16, 2020.

U.S. Patent 11,265,717, Detecting SS7 Redirection Attacks with Audio-Based Distance Bounding. Patrick G. Traynor, Christian Peeters, Bradley G. Reeves, Hadi Abdullah, Kevin Butler, Jasmine Bowers, Walter N. Scaife. March 1, 2022.

U.S. Patent 11,568,044, Method and Apparatus For Vetting Universal Serial Bus Device Firmware. Kevin Butler, Tuba Yavuz, Jing Tian, Grant Hernandez, Farhaan Fowze. January 31, 2023.

U.S. Patent 11,640,464, Protocol Model Learning and Guided Firmware Analysis. Tuba Yavuz, Farhaan Fowze, Kevin Raymond Boyce Butler, Jing Tian, Grant Haydock Hernandez. May 2, 2023.

U.S. Patent 11,663,388, Automated Security Analysis of Baseband Firmware. Grant Haycock Hernandez, Kevin R. Butler, Patrick G. Traynor. May 31, 2023.

Patent Applications

Non-provisional Application 18/748,590, Detecting Deepfake Audio Using Turbulence. Patrick G. Traynor, Kevin Butler, Daniel Olszewski, Logan E. Blue, Magdalena Pasternak. Filed June 20, 2024.

Provisional Application US 2024/0187735 A1, Acoustic Eavesdropping Using a Smartphone Camera. Yan Long, Kevin Fu, Kevin Butler, Sara Rampazzi, Pirouz Naghavi. Filed June 6, 2024.

Provisional Application 63/567,568, Identifying Deepfake Audio Using Breath Detection And Measurement. Patrick G. Traynor, Kevin S. Warren, Kevin Butler, Seth Layton, Daniel Olszewski, Thiago de Andrade, Carrie Gates. Filed March 20, 2024.

Non-Provisional Application 18/334,765, System, Method, and Apparatus for Detecting Call Interception. Patrick G. Traynor, Kevin Butler, Christian Peeters, Tyler Tucker. Filed June 14, 2023.

Provisional Application US 2023/0343342 A1, Detecting Audio Deepfakes Through Acoustic Prosodic Modeling. Patrick G. Traynor, Kevin S. Warren, Kevin Butler, Seth Layton, Daniel Olszewski, Carrie Gates. Filed October 26, 2023.

Teaching

University of Florida

- *CIS 6930/4930: Special Topics: Security and Privacy for Marginalized and Vulnerable Populations*, graduate/undergraduate, Spring 2024.

- *CIS 5370: Computer and Information Security (Systems Security)*, graduate, Spring 2023, Spring 2019, Spring 2018, Spring 2017.
- *CIS 6930: Special Topics: Mobile and Embedded System Security*, graduate, Spring 2020.
- *CIS 4360: Computer and Information Security*, undergraduate, Fall 2020, Fall 2019, Fall 2018, Fall 2017.
- *CNT 5410: Computer and Network Security*, graduate, Fall 2015.

University of Oregon

- *CIS 415: Operating Systems (substantially revised)*, Spring 2014, Spring 2013, Spring 2012, Spring 2011.
- *CIS 607: Seminar on Generating Trustworthy Data (new)*, Winter 2014.
- *CIS 607: Seminar on Embedded Systems and Security (new)*, Spring 2013.
- *CIS 433/533: Computer and Network Security*, Winter 2013, Winter 2011.
- *CIS 607: Seminar on Computer Security in the Physical World (new)*, Spring 2012.
- *CIS 330: C/C++ and UNIX (substantially revised)*, Winter 2012.
- *CIS 610: Advanced Topics in Systems Security (new)*, Fall 2011.
- *CIS 607: Seminar on Security in Systems, Storage, and Clouds (new)*, Fall 2010.

The Pennsylvania State University

- *EE/CSE 458: Computer Networks*, Summer 2006.

Professional Service

Editorial Positions, Panels, and Boards

Editorial Boards:

Associate Editor, ACM Transactions on Security and Privacy (TOPS), 2021-present.

Associate Editor, Journal of Computer Security, 2020-present.

Associate Editor, IEEE Transactions on Dependable and Secure Computing (*Impact Factor: 4.41*), 2019-2025.

Associate Editor, ACM Digital Threats: Research and Practice, 2017-present.

Editorial Board, International Journal of Cybersecurity Science and Technology, 2017-2022.

Review Board, IEEE Systems Journal, Special Issues on Security and Privacy in Complex Systems, 2012.

Scientific Grant and Award Panels:

Referee, European Research Council, 2025.

Co-Chair, ACM SIGSAC Doctoral Dissertation Committee, 2024.

Review Panelist, National Science Foundation, 2025 (3), 2024, 2022, 2021, 2020, 2018, 2017, 2016, 2014 (2), 2013, 2012.

Grant Reviewer, Natural Science and Engineering Research Council of Canada, 2024, 2023, 2022, 2019, 2018, 2017.

Review Panelist, American Association for the Advancement of Science (AAAS), 2019.

Grant Reviewer, Austrian Science Fund, 2018.

Grant Reviewer, Israel Science Foundation, 2016.

Conference Steering Committees:

Steering Committee Member, USENIX Security Symposium, 2023-*present*.

Steering Committee Member, ACM Conference on Security and Privacy in Wireless and Mobile Networks, 2019 -em present.

Steering Committee Member, Annual Computer Security Applications Conference, 2014 -*present*.

Service to National and International Organizations:

Co-Chair, Computing Research Association Workshop on Visioning the Future of Drone Computing, 2025-*present*.

Member, Review Working Group, President's Council of Advisors on Science and Technology (PCAST), White House Office of Science and Technology Policy, 2024.

Organizing Committee Member, Computing Research Association Visioning Workshop on Supporting At-Risk Users through Responsible Computing, 2024-2025.

Council Member, Computing Research Association Computing Community Consortium (CRA CCC), 2023-present.

Co-Chair, Security, Infrastructure, and Trust Working Group, Financial Inclusion Global Initiative, International Telecommunications Union, 2017-2022.

Co-Chair and Leader of Security Workstream, Technology, Innovation, and Competition Working Group, Focus Group on Digital Financial Services, International Telecommunications Union,

2015-2016.

Conference & Workshop Chairships

Program and Conference Committee Chairs

1. **Technical Program Co-Chair**, 32nd USENIX Security Symposium (USENIX Security'22), Boston, MA, USA, August 2022.
2. **Conference General Chair**, 36th and 37th Annual Computer Security Applications Conference (ACSAC'20, ACSAC'21), Austin, TX, USA, 2020,2021.
3. **Technical Program Co-Chair**, 16th EAI International Conference on Security and Privacy in Communication Networks (Securecomm 2020), Washington, DC, USA, October 2020.
4. **Technical Program Co-Chair**, 2020 USENIX Summit on Hot Topics in Security (HotSec'20), Boston, MA, USA, August 2020 (*suspended due to COVID-19 pandemic*)
5. **Technical Program Co-Chair**, 11th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec'18), Stockholm, Sweden, July 2018.
6. **Conference General Chair**, 38th IEEE Symposium on Security and Privacy, San Jose, CA, May 2017.
7. **Technical Program Chair**, 30th Annual Computer Security Applications Conference (ACSAC 2014), New Orleans, LA, December 2014.
8. **Technical Program Co-Chair**, 29th Annual Computer Security Applications Conference (ACSAC 2013), New Orleans, LA, December 2013.

Other Committee Chairs

9. **Chair, Test of Time Award Committee**, ACM Conference on Computer and Communications Security, 2026.
10. **Associate Program Committee Chair**, 2026 Network and Distributed Systems Security Symposium (NDSS'26), San Diego, CA, USA, February 2026.
11. **Vice Chair and Registration Chair**, 37th IEEE Symposium on Security and Privacy, San Jose, CA, May 2016.
12. **Chair, Test of Time Award Committee**, Annual Computer Security Applications Conference (ACSAC), 2019.
13. **Short Talks Co-Chair**, USENIX Security Symposium, 2017.
14. **Panels Chair**, Annual Computer Security Applications Conference (ACSAC), 2012, 2011.
15. **Publicity Chair**, Annual Computer Security Applications Conference (ACSAC), 2010.

Other Conference and Workshop Organization Activities

16. **Doctoral Symposium Committee Member**, ACM Conference on Computer and Communications Security, 2025.

17. **Test of Time Award Committee Member**, ACM Conference on Computer and Communications Security, 2025.
18. **Test of Time Committee Member**, IEEE Symposium on Security and Privacy, 2025.
19. **Doctoral Symposium Committee Member**, ACM Conference on Computer and Communications Security, 2024.

Technical Program Committee Memberships (124 Tech. Program Committees)

Top-4 Security Conferences

20. **USENIX Security Symposium**: *TPC Member*, 2026, 2025, 2021, 2020, 2019, 2018, 2017, 2015, 2014.
21. **IEEE Symposium on Security and Privacy (Oakland)**: *TPC Member*, 2025, 2024, 2023, 2021, 2020, 2018, 2017, 2016, 2012; *Publications Chair*, 2014, 2013, 2012, 2011, *Submissions Chair*, 2008.
22. **ISOC Network and Distributed Security Symposium (NDSS)**: *TPC Member*, 2021, 2020, 2019, 2018, 2017, 2016.
23. **ACM Conference on Computer and Communications Security (CCS)**: *TPC Member*, 2020, 2016, 2015, 2014, 2013; *TPC Member (Industry Track)*, 2007, 2004.

Other Conferences and Workshops

24. **IEEE Workshop on Meta-Science and Critical Reflections in Security and Privacy Research (MetaCRiSP)**, *TPC Member*, 2026.
25. **Workshop on SOC Operations and Construction (WOSOC)**, *TPC Member*, 2026.
26. **ACM Conference on Reproducibility and Replicability (REP)**, *TPC Member*, 2025.
27. **Privacy Enhancing Technologies Symposium (PETS)/Journal of Privacy Enhancing Technologies**, *Senior PC Member*, 2023, *TPC Member/Editorial Board*, 2014-2016.
28. **IEEE Conference on Secure and Trustworthy Machine Learning (SaTML)**: *TPC Member*, 2023.
29. **USENIX Symposium on Usable Security and Privacy (SOUPS)**: *TPC Member*, 2024.
30. **ACM Conference on Security in Wireless and Mobile Networks (WiSec)**: *TPC Member*, 2024, 2023, 2022, 2021, 2020, 2019, 2017, 2016, 2015, 2014.
31. **IEEE Secure Development Conference (SecDev)**: *TPC Member*, 2023, 2022.
32. **USENIX Annual Technical Conference (ATC)**: *TPC Member*, 2021, 2020.
33. **IEEE European Symposium on Security and Privacy (Euro S&P)**: *TPC Member*, 2020.
34. **USENIX Workshop on Cyber Security Experimentation and Test (CSET)**: *TPC Member*, 2019, 2015, 2014, 2013.
35. **International Workshop on the Theory and Practice of Provenance (TaPP)**: *TPC Member*, 2019.
36. **USENIX Enigma Conference**: *TPC Member*, 2019, 2018.

37. **ACM Cloud Computing Security Workshop (CCSW):** *TPC Member*, 2019, 2014.
38. **International Provenance and Annotation Workshop (IPAW):** *TPC Member*, 2018
39. **ACM Symposium on Information, Computer and Communications Security (ASIACCS):** *TPC Member*, 2018, 2017, 2015, 2014.
40. **Annual Computer Security Applications Conference (ACSAC):** *TPC Member*, 2018, 2017, 2012.
41. **World Conference on Information Security Applications (WISA):** *TPC Member*, 2017.
42. **International Conference on Cryptology and Network Security (CANS):** *TPC Member*, 2017.
43. **New Security Paradigms Workshop (NSPW):** *TPC Member*, 2016, 2015, 2014, 2013.
44. **IEEE Mobile Security Technologies Workshop (MOST):** *TPC Member*, 2015, 2014.
45. **Symposium and Bootcamp on the Science of Security (HotSoS):** *TPC Member*, 2015.
46. **Workshop on Encrypted Computing and Applied Homomorphic Cryptography (WAHC):** *TPC Member*, 2015.
47. **European Symposium on Research in Computer Security (ESORICS):** *TPC Member*, 2014, 2013, 2012.
48. **Smart Energy Grid Security Workshop (SEGS):** *TPC Member*, 2014, 2013.
49. **Conference on Privacy, Security and Trust (PST):** *TPC Member*, 2014, 2013.
50. **Global Internet Symposium (GI):** *TPC Member*, 2014.
51. **IEEE International Conference on Big Data (BigData):** *TPC Member*, 2013.
52. **IEEE LCN Network Security Workshop (WNS):** *TPC Member*, 2013.
53. **International Workshop on Security in Information Systems (WOSIS):** *TPC Member*, 2013, 2012.
54. **International Conference on Applied Cryptography and Network Security (ACNS):** *TPC Member*, 2013.
55. **International Workshop on Security (IWSEC):**, *TPC Member*, 2012, 2008, 2007.
56. **Workshop on Secure Network Protocols (NPSec):** *Publicity Chair*, 2012.
57. **LCN Workshop on Security in Communication Networks (SICK):** *TPC Member*, 2012.
58. **USENIX Workshop on Hot Topics in Security (HotSec):** *TPC Member*, 2012.
59. **International Workshop on Security (IWSEC):** *TPC Member*, 2011, 2010.
60. **International Conference on Security and Privacy in Communication Networks (SecureComm):** *TPC Member*, 2011.
61. **International Conference on Availability, Reliability and Security (ARES):** *TPC Member*, 2011, 2010, 2009, 2008, 2007.
62. **International Conference on Internet Monitoring and Protection (ICIMP):** *TPC Member*, 2011, 2010.
63. **International Conference on Financial Cryptography and Data Security (FC):** *TPC Member*, 2011.

64. **International Conference on Information Systems Security (ICISS):** *TPC Member*, 2009, 2008, 2007; *Submissions and Web Chair*, 2007.
65. **IEEE International Workshop on Software Security Process:** *TPC Member*, 2009.
66. **International Conference on International Conference on Information Security and Assurance (ISA):** *TPC Member*, 2009, 2008; *Publicity Co-Chair*, 2008.
67. **International Workshop on Security in Systems and Networks (SSN):** *TPC Member*, 2009, 2007.
68. **Conference on Future Generation Communication and Networking (FGCN):** *TPC Member*, 2008, 2007.
69. **IEEE International Workshop on Security in Software Engineering (IWSSE):** *TPC Member*, 2008, 2007.
70. **IEEE/IFIP Conference on Dependable Systems and Networks (DSN):** *TPC Member (Fast Abstracts)*, 2008.
71. **International Workshop on Secure Software Engineering (SecSE):** *TPC Member*, 2008.

Conference Session Chair: USENIX Security'18, ACSAC'17, WWW'17, IEEE SP'16, CCS'16, CCS'14, HotSec'12, IEEE SP'12, CCS'09

Journal & Book Reviewing

IEEE Transactions on Dependable and Secure Computing (TDSC), 2019, 2014, 2010; Communications of the ACM (CACM), 2019; IEEE Transactions on Computers (TC), 2019, 2012, 2009; IEEE Security and Privacy, 2018, 2013, 2010; Journal of Computer Security (JCS), 2018; IEEE Transactions on Information Forensics and Security (TIFS), 2017, 2013, 2011; Journal of Internet Services and Applications (JISA), 2017; ACM Transactions on Information and System Security (TISSEC), 2016, 2015, 2014, 2010, 2009, 2008, 2006; IEEE Transactions on Reliability (TR), 2014; ACM Transactions on Internet Technologies (TOIT), 2013, 2010, 2009; ACM Computing Surveys, 2013; ACM Transactions on Storage (TOS), 2013, 2011; Elsevier Computers and Security, 2013, 2011; International Journal of Computer Mathematics, 2011; IEEE Transactions on Parallel and Distributed Systems (TPDS), 2011, 2008; Wiley and Sons (Book proposal reviewer), 2010; EURASIP Journal on Information Security (JIS), 2011, 2010; Elsevier Journal of Computer Networks, 2010, 2005; International Journal of Software and Informatics (IJSI), 2010; International Journal of Security and Networks (IJSN), 2009, 2007; The Computer Journal (Oxford), 2009; ACM/IEEE Transactions on Networking (TON), 2008; Wireless Personal Communications, 2008; IEEE Communications Surveys and Tutorials, 2007; IEEE Transactions on Software Engineering (TSE), 2007; Software: Practice and Experience, 2007; Handbook of Information Security, 2004.

Conference & Workshop Reviewing

USENIX OSDI, 2016; IEEE INFOCOM, 2014, 2007; IEEE Symposium on Security and Privacy (S&P), 2013, 2009, 2008, 2007; ISOC Symposium on Network and Distributed Systems Security (NDSS), 2013, 2012, 2009, 2007; ACM Conference on Data and Application Security and Privacy (CODASPY), 2013; IEEE Computer Security Foundations Symposium (CSF), 2011; ACM Symposium

on Computer and Communications Security (CCS), 2010, 2009, 2008, 2006; Annual Computer Security Applications Conference (ACSAC), 2010, 2007, 2006, 2005; USENIX Workshop on Hot Topics in Security (HotSec), 2010, 2007; ACM Symposium on Access Control Models and Technologies (SACMAT), 2010, 2009, 2008, 2006; IFCA International Conference on Financial Cryptography and Data Security (FC), 2010, 2008, 2007; Information Security Conference (ISC), 2009; USENIX Security Symposium, 2009, 2008, 2007, 2006, 2004; IEEE GLOBECOM, 2008; IFIP Conference on Data and Applications Security (DBSEC), 2008, 2006; USENIX Conference on File and Storage Technologies (FAST), 2008; IEEE International Conference on Computer Engineering and Systems (ICCES), 2007; IEEE International Conference on Distributed Computing Systems (ICDCS), 2007; IEEE Sarnoff Symposium, 2007; IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), 2007; ACM International Workshop on Storage Security and Survivability (StorageSS), 2006; International Workshop on Security (IWSEC), 2006; International Conference on Emerging Trends in Computer Science (ETRICS), 2006; International Conference on Applied Cryptography and Network Security (ACNS), 2006; European Symposium on Research in Computer Security (ESORICS), 2005.

University Service

Faculty Search Committee, Chair, UF JAX Security and Privacy, CISE, University of Florida, 2025-2026.

Mentorship Committee, Chair, CISE, University of Florida, 2025-present.

Energy Grid Security Summit, Co-Chair, Strategic Research and Development, University of Florida, 2025.

Search Committee, Director of Strategic Communications and Marketing, Chair, College of Engineering, University of Florida, 2023-2024.

Sabbatical Committee, Member, College of Engineering, University of Florida, 2021-2022.

Steering Committee, Member, University of Florida, 2018-2022.

Graduate Admissions Committee, Member, CISE, University of Florida, 2019-present.

Consortium for Media and Trust Director Search Committee, Member, University of Florida, 2019.

Faculty Search Committee, Chair, CISE, University of Florida, 2018-2021.

Faculty Search Committee, Member, CISE, University of Florida, 2017-2018.

Awards Committee, Member, CISE, University of Florida, 2015-2025.

Graduate Affairs Committee, Member, CISE, University of Florida, 2014-2018.

Graduate Education Committee, Member, CIS, University of Oregon, 2010-2014.

Undergraduate Curriculum Committee, Member, CIS, University of Oregon, 2012-2014.

General Education Committee, Member, University of Oregon, 2013-2014.

Students

Graduate Advisees

Current Ph.D. Advisees:

1. Anna Crowder (PhD, Spring 2026)
2. Magdalena Pasternak (PhD, Spring 2027)
3. Carson Stillman (PhD, Spring 2027, co-advised with Sara Rampazzi)
4. Nathaniel Bennett (PhD, Spring 2027, co-advised with Patrick Traynor)
5. Kevin Childs (PhD, Spring 2028)
6. Bernardo Medieros (PhD, Spring 2029)
7. Kollin Labowski (PhD, Spring 2029)
8. Joel Hirschmann (PhD, Spring 2029)
9. Scott Slinn (PhD, Spring 2030)

Past Ph.D Advisees:

1. Weidong Zhu, Summer 2025, co-advised with Sara Rampazzi, now **Assistant Professor of Computing and Information Sciences**, Florida International University.
2. Cassidy Gibson, Spring 2025, co-advised with Patrick Traynor, now **Postdoctoral Fellow**, Human Computing Associates.
3. Washington Garcia, Fall 2022, now **Research Scientist**, University of Dayton Research Institute.
4. Grant Hernandez, Summer 2020, now **Security Resaercher**, L3Harris.
5. Dave (Jing) Tian, Summer 2019, now **Associate Professor of Computer Science**, Purdue University (NSF CAREER award, 2022).
6. Adam Bates, Summer 2016, now **Associate Professor of Computer Science**, University of Illinois at Urbana-Champaign (NSF CAREER award, 2018).
7. Benjamin Mood Spring 2016, now **Associate Professor of Computer Science**, Point Loma Nazarene University.

Past Master's Degree Students:

1. Yunhao Wu (MS, Spring 2024),

2. Caroline Fedele (MS, Fall 2023),
3. Benjamin Simon (MS, Spring 2023),
4. Blas Kojusner (MS, Fall 2022),
5. Hunter Searle (MS, Summer 2022),
6. Vanessa Frost (MS, Spring 2022),
7. Joseph Choi (MS, Spring 2021),
8. Joseph Pletcher (MS, Spring 2013),
9. Adam Bates (MS, Spring 2012),
10. Benjamin Mood (MS, Spring 2012),
11. Masoud Valafar (MS, Fall 2011).

Other Graduate Student Advising

PhD Committee Member:

1. Ghulam Memon (PhD, University of Oregon, Fall 2013),
2. Saeed Sadeghian (PhD, University of Calgary, Fall 2015),
3. Henry Carter (PhD, Georgia Institute of Technology, Spring 2016),
4. Mehdi Sadi (PhD, University of Florida, Spring 2017),
5. Bradley Reaves (PhD, University of Florida, Summer 2017),
6. Robert Karam (PhD, University of Florida, Summer 2017),
7. Luka Malisa (PhD, ETH Zurich, Summer 2017),
8. Fengchao Zhang (PhD, University of Florida, Spring 2018),
9. Kai Yang (PhD, University of Florida, Summer 2018),
10. Nolen Scaife (PhD, University of Florida, Spring 2019),
11. Ruimin Sun (PhD, University of Florida, Spring 2019),
12. Francesco Pittaluga (PhD, University of Florida, Spring 2019),
13. Jonathan Smith (PhD, University of Florida, Spring 2020),
14. Beong Heyn Kim (PhD, University of Toronto, Spring 2020),
15. Christopher Patton (PhD, University of Florida, Summer 2020),
16. Xiaoyong Yuan (PhD, University of Florida, Summer 2020),
17. Farhaan Fowze (PhD, University of Florida, Summer 2020),
18. Tamzidul Hoque (PhD, University of Florida, Summer 2020),
19. Jasmine Bowers (PhD, University of Florida, Summer 2020),
20. Olufemi Odegbile (PhD, University of Florida, Spring 2021),
21. Luis Vargas (PhD, University of Florida, Spring 2021),

22. Atul Prasad Deb Nath (PhD, University of Florida, Spring 2021),
23. Abdulrahman Alaqi (PhD, University of Florida, Spring 2021),
24. Aritra Dhar (PhD, ETH Zurich, Summer 2021),
25. Olufemi Odegbile (PhD, University of Florida, Summer 2021),
26. Yazhou Tu (PhD, University of Louisiana at Lafayette, Fall 2021),
27. Shubhra Deb Paul (PhD, University of Florida, Spring 2022),
28. Hadi Abdullah (PhD, University of Florida, Spring 2022),
29. Christian Peeters (PhD, University of Florida, Summer 2022),
30. Brendan David-John (University of Florida, Summer 2022),
31. Sarah Amir (PhD, University of Florida, Summer 2022),
32. Jonathan Cruz (PhD, University of Florida, Fall 2022),
33. Logan Blue (PhD, University of Florida, Spring 2023),
34. Animesh Chhotaray (PhD, University of Florida, Spring 2023),
35. Chaoyi Ma (PhD, University of Florida, Spring 2023),
36. Martin Georgiev (PhD, University of Oxford, Spring 2023),
37. Sujan Kumar Saha (PhD, University of Florida, Summer 2023),
38. Minh Vu (PhD, University of Florida, Fall 2023),
39. Md Rakid Muttaki (PhD, University of Florida, Fall 2023),
40. Manish Merugu (PhD, University of Florida, Spring 2024),
41. Christopher Brant (PhD, University of Florida, Summer 2024),
42. Mohammad Monir Hossain (PhD, University of Florida, Summer 2024),
43. Mohammad Sami Ul Islam Sami (PhD, University of Florida, Fall 2024),
44. Ethan Wilson (PhD, University of Florida, Spring 2025),
45. Aritra Dasgupta (PhD, University of Florida, Spring 2025),
46. Yichen Jiang (PhD, University of Florida, Spring 2025),
47. Wenxuan Bao (PhD, University of Florida, Summer 2025),
48. Seth Layton (PhD, University of Florida, Summer 2025),
49. Tyler Tucker (PhD, University of Florida, Summer 2025),
50. Ruochen Dai (PhD, University of Florida, Summer 2025),
51. Yihang (Ken) Bai (PhD, University of Florida, Summer 2025),
52. Xingli Zhang (PhD, University of Louisiana at Lafayette, Fall 2025),
53. Muhammed Kawser Ahmed (PhD, University of Florida, Spring 2026),
54. Rasheed Kibria (PhD, University of Florida, Spring 2026),
55. Mrida Rahman (PhD, University of Florida, Spring 2026)),

56. Channing Ludden (PhD, University of Florida, Spring 2028),
57. Mansi Pai (PhD, University of Florida, Spring 2029),
58. Izabela Savic (PhD, University of Guelph, Spring 2029).

Other Committee Membership: Ming Liu (University of Florida, thesis proposal committee, Spring 2016), Reza Motamedi (University of Oregon, thesis proposal committee, Spring 2014), Jason Gustafson (University of Oregon, MS Committee, Winter 2012), Amir Amir Farzad (University of Oregon, MS committee, Spring 2013).

Undergraduate Students

1. Hannah Pruse (Honors BS, Oregon, Spring 2013 - **NSF Graduate Fellow**),
2. Ryan Leonard (Honors BS, Oregon, Spring 2013),
3. Peter McKay (Honors BS, Oregon, Spring 2013),
4. Braden Hollembaek (Honors BS, Oregon, Spring 2014),
5. Abdul Alkhelaifi (Honors BS, Oregon Spring 2014),
6. Devan Patel (BS, Florida, Spring 2015),
7. Cynthia Omauzo (CS, Prairie View A&M, CRA DREU, hosted Summer 2015),
8. Jared Trinkler (BS, University Scholar, Florida, Spring 2017),
9. Joshua Uduehi (CRA DREU, BS, Indiana University, hosted Summer 2017),
10. Suman Adari (BS, Florida, Spring 2021),
11. Christie Ruales (BS, CRA/ACSA SWSIS Scholar, University Scholar, University of Florida, Spring 2021),
12. César Arguello (BS, Florida, Spring 2022),
13. Katie Platt (BS, Florida, Fall 2022),
14. Gabriella Neris (BS, Florida, Spring 2023),
15. Aryaan Verma (BS, Florida, Spring 2025),
16. Carolina Boitel (Honors BS, Florida, Spring 2025),
17. Santiago Barrios (BS, Florida, Spring 2025),
18. Ishan Kumthekar (BS, Florida, Spring 2026),
19. Sema Akkaya (BS, Florida, Spring 2028).

Presentations & Invited Talks

1. Securing Satellite Rendezvous and Proximity Operations with MPC. *Dagstuhl Seminar on Privacy-Preserving Technologies of Societal Impact*, Wadern, Germany, July 2025.
2. **Keynote Address:** Exploring Unanticipated Functionality in Cellular Devices and Networks. *18th ACM Conference on Security and Privacy in Wireless and Mobile Networks*, Arlington, VA, USA, June 2025.

3. DFS Application Best Practices for Mobile Application Developers. *ITU DFS Webinar - Securing Mobile Payment Applications*, virtual, March 2025.
4. Securing the Future of Computing for Marginalized and Vulnerable Populations. *Tufts University*, Boston, MA, USA, December 2024.
5. **Keynote Address:** Unsafe at any G? Implications of unintended functionality in telecommunications networks and devices for CPS environments. *EAI International Conference on Security and Privacy in Cyber-Physical Systems and Smart Vehicles (SmartSP)*, New Orleans, LA, November 2024.
6. *Distinguished Lecture:* From Blue Boxes to Black Boxes: Exposing Security Vulnerabilities in Mobile Devices and Networks. *Queen's Centre for Security and Privacy*, Queen's University, Kingston, ON, Canada, October 2024.
7. Ransom Crisis: Mitigating the Ransomware Threat. *Eastern Indonesia Financial Inclusion Lab (EIFIL)*, Denpasar, Bali, Indonesia, August 2024.
8. Systems and DFS Security: Concepts and Adversarial Thinking. *Eastern Indonesia Financial Inclusion Lab (EIFIL)*, Denpasar, Bali, Indonesia, August 2024.
9. Best Practices for DFS Application Security. *Financial Inclusion and Tech Talk (FITT)*, Jakarta, Indonesia (virtual), June 2024.
10. Securing the Future of Computing for Marginalized and Vulnerable Populations. *NITRD Privacy R&D Inter-agency Working Group*, Washington, DC (virtual), May 2024.
11. Assessing the Mobile Device Platform to Assure DFS Security. *ITU Regional Digital Financial Services Security Clinic for Asia-Pacific Region*, Seoul, Republic of Korea, April 2024.
12. Understanding the Current and Emerging Cybersecurity Threat Landscape. *Gator 100 Professional and Leadership Development Workshop*, Gainesville, FL, April 2024.
13. From Blue Boxes to Black Boxes: Telecommunications Security Research at the Florida Institute for Cybersecurity Research. *UF Eye-Opener Discovery Breakfast*, Gainesville, FL, March 2024.
14. Following the Money: Characterizing the Monetization Ecosystem of Stalkerware Through Application Analysis. *USENIX GREPSEC Workshop*, Anaheim, CA, August 2023.
15. **Keynote Address:** From Blue Boxes to Black Boxes: Adventures in Uncovering Device Functionality. *IEEE Workshop on Offensive Technology (WOOT)*, San Francisco, CA, May 2023.
16. From Blue Boxes to Black Boxes: Telecommunications Security Research at the Florida Institute for Cybersecurity Research. *Florida Cybersecurity Advisory Council*, Gainesville, FL, May 2023.
17. Privacy-Preserving Computation for Resource-Constrained Devices. *NATO Science and Technology Office ET Meeting*, Washington, DC, November 2022.
18. Security Assurance for the DFS Ecosystem. *ITU Study Group 17 Meeting*, virtual, August 2021.
19. Improving Resilience in the DFS Ecosystem with a Security Assurance Framework. *ITU/FIGI Insights on Digital Financial Services during COVID-19 Webinar Series*, virtual, July 2020.
20. Investigating External Surfaces in Android Devices. *Microsoft Research*, Cambridge, United Kingdom, February 2020.
21. Firmware-Informed Approaches to Securing Systems and Devices. *ARM Research*, Cambridge, United Kingdom, February 2020.

22. Cybersecurity and Election Security: Innovations in Research and Technology (with Juan Gilbert). *Orange and Blue Plate Luncheon*, Tallahassee, FL, February 2020.
23. Making MPC More Accessible Through Informed Compiler Design. *Workshop on Teaching Secure Computation*, Washington, DC, January 2020.
24. Analyzing Applications to Assess Security. *FIGI Security Clinic*, Geneva, Switzerland, December 2019.
25. Application Security Framework for DFS. *FIGI Security Clinic*, Geneva, Switzerland, December 2019.
26. Security Research at the Florida Institute for Cybersecurity Research (with Patrick Traynor). *UF Eye Opener Breakfast*, Gainesville, FL, USA, October 2019.
27. “Plug and Pray” Today: Reflecting on a Decade of Peripheral Security Research. *UCLA*, Los Angeles, CA, USA, April 2019.
28. Cybersecurity Challenges in a Diverging Internet. *Jean Monnet Centre of Excellence Annual Workshop on the European Union*, Gainesville, FL, USA, April 2019.
29. Designing a Security Management Framework for Digital Financial Services. *ITU Security, Infrastructure, Trust Working Group Meeting*, Washington, DC, USA, April 2019.
30. Developing a Consortium on Trust in Media and Technology. *Invited Panelist. University of Florida Foundation National Board Meeting*, Atlanta, GA, USA, March 2019.
31. Designing a Security Management Framework for Digital Financial Services. *Financial Inclusion Global Symposium*, Cairo, Egypt, January 2019.
32. Staying Safe in Cyberspace: Understanding the Threats and Defenses. *The Village at Gainesville*, Gainesville, FL, USA, October 2018.
33. Domain Informed Techniques for IoT Security (with Tuba Yavuz). *ARM Research*, San Jose, CA, USA, October 2018.
34. A Discussion on Security Education in Academia. *Invited Panelist. ACM Conference on Communications and Communication Security (CCS)*, Toronto, ON, Canada, October 2018.
35. New Attack Surfaces Against Mobile Platforms. *Columbia University Cybersecurity and Payments Roundtable*, New York, NY, August 2018.
36. **Keynote Address:** Secure and Efficient Whole-System Data Provenance: A Retrospective. *2nd Workshop on Provenance-based Security*, London, UK, July 2018.
37. “Plug and Pray” Today: Reflecting on a Decade of USB Security Research. *University of Oxford*, Oxford, UK, July 2018.
38. “Plug and Pray” Today: Reflecting on a Decade of USB Security Research. *Chinese Academy of Sciences*, Beijing, China, June 2018.
39. Characterizing Tooling and Interfaces for Mobile Applications and Devices. *Samsung Research America*, Mountain View, CA, USA, May 2018.
40. “Plug and Pray” Today: Reflecting on 10 Years of USB Security Research. *Symantec Research Labs*, Culver City, CA, USA, May 2018.
41. A Security Framework for for DFS Featurephone Applications. *ITU FIGI Security, Information, and Trust Working Group Meeting*, Washington, DC, USA, April 2018.

42. Application Security for DFS Featurephone Applications. *Financial Inclusion Global Initiative Symposium*, Bangalore, India, November 2017.
43. Towards More Robust Interactions with Telephones and Peripherals (with Patrick Traynor). *Florida International University*, Miami, FL, October 2017.
44. **Keynote Address:** Making USB Safer for Hosts and Peripherals. *Third International Conference on Future Network Systems and Security (FNSS 2017)*, Gainesville, FL, August 2017.
45. Making USB Safer for Hosts and Peripherals. *ETH Zurich*, Zurich, Switzerland, July 2017.
46. Security Challenges in Mobile Devices. *FinTech, DFS and Payments Summit, Columbia Business School*, New York, NY, June 2017.
47. Webinar: Trends and Challenges in Mobile Money and Mobile Banking Application Security. *Digital Financial Services Observatory, Columbia University*, June 2017.
48. Towards Firmware Vetting on Legacy Embedded Platforms. *10th Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies*, Albuquerque, NM, May 2017.
49. Technical Deep Dive: Foundations of Hardware-Assisted Secure Multiparty Computation with SGX. *10th Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies*, Albuquerque, NM, May 2017.
50. Security and Privacy Challenges for Mobile Money Applications. *ITU Digital Financial Services Workshop: Exploring Innovation in Transactions and Financing in the Caribbean*, Port of Spain, Trinidad and Tobago, April 2017.
51. Everybody Jammin' Up on Those Tings: Challenges for the Internet of Insecure Things. *Forum on Internet of Things: Smarter Living in the Caribbean*, Port of Spain, Trinidad and Tobago, April 2017.
52. Application Security for DFS Applications. *ITU Workshop on DFS and Financial Inclusion*, Washington, DC, April 2017.
53. **Keynote Address:** Making USB Safer for Hosts and Peripherals. *Computer Science Research Day, University of Georgia*, Athens, GA, April 2017.
54. Security in the DFS Ecosystem - Final Recommendations. *ITU Focus Group Meeting on Digital Financial Services*, Geneva, Switzerland, December 2016.
55. Making USB Great Again: New Defenses for Hosts and Devices. *MIT Lincoln Laboratory*, Lexington, MA, USA, October 2016.
56. Making USB Great Again: New Defenses for Hosts and Devices. *Dartmouth College*, Hanover, NH, USA, October 2016.
57. Recommendations for Securing Digital Finance. *ITU Focus Group Meeting on Digital Financial Services*, Dar es Salaam, Tanzania, September 2016.
58. Secure and Efficient Data Provenance. *DARPA Transparent Computing PI Meeting*, Cambridge, MA, USA, July 2016.
59. Security for Digital Alternative Data and SME Supply Chain Finance. *G20 Global Partnership for Financial Inclusion (GPII) Forum*, Chengdu, China, July 2016.
60. Privacy-Preserving Computing Made Practical. *9th Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies*, Albuquerque, NM, USA, June 2016.
61. Host Fingerprinting for Identity and Integrity Assurance Using Machine Learning. *9th Workshop*

- on Fault-Tolerant Spaceborne Computing Employing New Technologies*, Albuquerque, NM, USA, June 2016.
62. Security and Privacy Challenges for Mobile Money in Mobile Devices. *5th Columbia Business School Digital Financial Services and Emerging Payments Summit*, New York, NY, USA, May 2016.
 63. Trustworthy Collection Architectures for Data Provenance. *Concordia University*, Montreal, QC, Canada, May 2016.
 64. Analyzing the Security of Sticky SIMs. *ITU Focus Group Meeting on Digital Financial Services*, Washington, DC, USA, April 2016.
 65. Secure and Trustworthy Computers, Devices, and Systems. *South Carolina Governor's School for Science and Mathematics*, Harstville, SC, USA, December 2015.
 66. Security Recommendations for the DFS Ecosystem. *ITU Focus Group Meeting on Digital Financial Services*, Geneva, Switzerland, December 2015.
 67. Securing Storage for Insider Threat Mitigation. *Florida Cyber Consortium Research Symposium*, Tampa, FL, USA, October 2015.
 68. Tales From the Crypt(o): Spooky Stories of Ideal-World Cryptography Meeting Real-World Implementation. *University of Calgary*, Calgary, AB, Canada, November 2015.
 69. Vulnerability Analysis of Branchless Banking Apps in the Developing World. *ITU Focus Group Meeting on Digital Financial Services*, Kuala Lumpur, Malaysia, October 2015.
 70. New Trends in Cybersecurity: Securing Critical Cyber-Infrastructure. *US Department of State/Department of Justice Cybercrime and Cybersecurity Workshop for Lusophone Africa*, Maputo, Mozambique, September 2015.
 71. Trustworthy Collection Architectures for Data Provenance. *MIT Lincoln Laboratory*, Lexington, MA, USA, August 2015.
 72. Be Who You Are: Establishing Host Identity in Local and Remote Systems. *EURECOM Institute*, Sophia Antipolis, France, July 2015.
 73. Be Who You Are: Establishing Host Identity in Local and Remote Systems. *Symantec Research Labs*, Mountain View, CA, USA, April 2015.
 74. Be Who You Are: Challenges of Establishing Host Identity in Local and Remote Systems. *Rutgers University*, New Brunswick, NJ, USA, March 2015.
 75. Certificate Validation and the Future of SSL Security. *Chi Sigma IO, University of Florida*, Gainesville, FL, USA, November 2014.
 76. Forced Perspectives: Evaluating an SSL Trust Enhancement at Scale. *2014 ACM Internet Measurement Conference (IMC'14)*, Vancouver, BC, Canada, November 2014.
 77. USB Host Fingerprinting. *Lockheed Martin*, Orlando, FL, October 2014.
 78. Improving Security Through Collaborative Frameworks. *IEEE CollaborateCom (Invited Panelist)*, Miami, FL, October 2014.
 79. Establishing Host Identity in Systems and Storage. *University of Florida*, Gainesville, FL, April 2014.
 80. Establishing Host Identity Through Indirect Measurement. *Pennsylvania State University*, University Park, PA, April 2014.

81. **Keynote Address:** Trust No One? Addressing the Challenges of Bottom Up Trust in Systems and Storage. *Symantec Cutting Edge*, Springfield, OR, March 2014.
82. Leveraging Emerging Storage Functionality for New Security Services. *Oregon State University*, Corvallis, OR, June 2012.
83. Protecting Portable Storage with Host Validation. *Queen's University*, Kingston, ON, Canada, April 2012.
84. Protecting Portable Storage with Host Validation. *NSERC ISSNet Security Workshop*, Kingston, ON, Canada, April 2012.
85. Attacks and Defenses Against the Cloud Infrastructure. *Oregon Security Day*, Eugene, OR, April 2012.
86. Leveraging Emerging Storage Functionality for New Security Services. *Portland State University*, Portland, OR, November 2011.
87. Leveraging Emerging Storage Functionality for New Security Services. *Galois*, Portland, OR, August 2011.
88. Securing Homecare Rehabilitation Environments. *UW/MSR Research Retreat*, Cle Elum, WA, August 2011.
89. Challenges and Alternatives to the Host Identification Problem. *Oregon Security Day*, Eugene, OR, April 2011.
90. Porscha: Policy Oriented Secure Content Handling in Android. *ACSAC 2010*, Austin, TX, December 2010.
91. Kells: A Protection Framework for Portable Data. *ACSAC 2010*, Austin, TX, December 2010.
92. Protection Mechanisms for Portable Devices. *Symantec Research Labs*, Mountain View, CA, November 2010.
93. Challenges and Alternatives to the Host Identification Problem. *2nd ACM Northeast Forensics Exchange (NeFX2010)*, Washington, DC, September 2010.
94. Disk-Enabled Authenticated Encryption. *MSST 2010*, Incline Village, NV, May 2010.
95. Leveraging Emerging Storage Functionality for New Security Services. *Polytechnic Institute of New York University*, Brooklyn, NY, March 2010.
96. Leveraging Emerging Storage Functionality for New Security Services. *Simon Fraser University*, Surrey, BC, Canada, March 2010.
97. Leveraging Emerging Storage Functionality for New Security Services. *Stevens Institute of Technology*, Hoboken, NJ, March 2010.
98. Leveraging Emerging Storage Functionality for New Security Services. *University of Tennessee*, Knoxville, TN, March 2010.
99. Leveraging Emerging Storage Functionality for New Security Services. *University of Oregon*, Eugene, OR, March 2010.
100. Leveraging Emerging Storage Functionality for New Security Services. *Naval Postgraduate School*, Monterey, CA, February 2010.
101. Towards a Secure and Efficient System for End-to-End Provenance. *TaPP'10*, San Jose, CA, February 2010.

102. Rootkit-Resistant Disks. *Security Reading Group, University of Toronto*, Toronto, ON, Canada, November 2009.
103. Rootkit-Resistant Disks. *Digital Security Seminar, Carleton University*, Ottawa, ON, Canada, November 2009.
104. U Can't Touch This: Protections for Portable Storage. *IWSSPS 2009*, Grenoble, France, Oct. 2009.
105. FlowStor: Preserving Information Flow on Portable Storage Devices. *Symantec Corporation*, Mountain View, CA, USA, August 2009.
106. Leveraging Emerging Disk Functionality for New Security Services. *Symantec Research Labs*, Mountain View, CA, USA, June 2009.
107. Rootkit-Resistant Disks. *CCS'08*, Alexandria, VA, USA, October 2008.
108. Experimenting with BGP Security Mechanisms Using the DETER Framework. *Boeing Integrated Defense*, Philadelphia, PA, USA, October 2008.
109. Terabyte Home Security and Access Control. *Seagate Research*, Pittsburgh, PA, USA, August 2008.
110. Towards Automated Privilege Separation. *ICISS 2007*, Delhi, India, December 2007.
111. Non-Volatile Memory and Disks: Avenues for Policy Architectures. *CSAW 2007*, Fairfax, VA, USA, November 2007.
112. Autonomously Secure Disks. *Software Reading Group, University of Michigan*, Ann Arbor, MI, USA, September 2007.
113. Leveraging Non-Volatile Memory for Storage Security. *2007 USENIX Security Symposium, Works in Progress*, Boston, MA, USA, August 2007.
114. Analysis of the IPv4 Address Delegation Structure. *ISCC 2007*, Aveiro, Portugal, July 2007.
115. Performance Optimizations of IPsec for Storage. *2007 SNIA Summer Security Summit*, Pittsburgh, PA, June 2007.
116. Optimizing BGP Security by Exploiting Path Stability. *CCS'06*, Alexandria, VA, November 2006.
117. Threats and Attacks in Interdomain Routing. *P2INGS Quarterly Meeting*, Tempe, AZ, February 2004.
118. Network Operations in Tier-1 Internet Service Providers. *Columbia University*, New York, NY, March 2001.
119. Network Operations in Tier-1 Internet Service Providers. *Telcordia Technologies*, Morristown, NJ, August 2000.

Press Coverage

Research-Related Coverage

1. "Critical Security Vulnerabilities in Cellular Networks Exposed by Researchers." Gert Jan Wolf, *The Critical Communications Review*, February 5, 2025. <https://www.criticalcommunicationsreview.com/ccr/news/115288/critical-security-vulnerabilities-in-cellular-networks-exposed-by-researchers>
2. "Over 100 LTE, 5G Bugs Threaten Cellular Service Disruptions." *ChannelE2E*, January 27, 2025.

<https://www.channele2e.com/brief/over-100-lte-5g-bugs-threaten-cellular-service-disruptions>

3. "RANsacked: Over 100 Security Flaws Found in LTE and 5G Network Implementations." Ravie Lakshmanan, *The Hacker News*, Jan 24, 2025. <https://thehackernews.com/2025/01/ransacked-over-100-security-flaws-found.html>
4. "Underwater data centres could be destroyed by loud noises." Jeremy Hsu, *New Scientist*, January 14, 2024. <https://www.newscientist.com/article/2430616-underwater-data-centres-could-be-destroyed-by-loud-noises/>
5. "Underwater datacentres vulnerable to sonic attacks." Dev Kundaliya, *Computing*, May 17, 2024. <https://www.computing.co.uk/news/4209265/underwater-datacentres-vulnerable-sonic-attacks>
6. "Underwater data centres risk sonic attacks." Nick Farrell, *Fudzilla*, May 17, 2024. <https://fudzilla.com/news/59003-underwater-data-centres-risk-sonic-attacks>
7. "Underwater datacenters could sink to sound wave sabotage". Dan Robinson, *The Register*, May 17, 2024. https://www.theregister.com/2024/05/17/underwater_datacenters_sound_waves/
8. "Acoustic attacks could be a serious threat to the future of underwater data centers." Rob Thubron, *TechSpot*, May 20, 2024. <https://www.techspot.com/news/103061-acoustic-attacks-could-be-serious-threat-future-underwater-data.html>
9. "Exploiting Decades-Old Telephone Tech to Break Into Android Devices." Lily Hay Newman, *Wired*, August 29, 2018. <https://www.wired.com/story/at-commands-android-vulnerability/>
10. "Modern smartphones vulnerable to old-school attack." Francis Navarro, *Komando.com*, August 28, 2018. <https://www.komando.com/happening-now/483269/modern-smartphones-vulnerable-to-old-school-attack>
11. "ATak na Androida: modemowe komendy standardu z lat 80 pozwalają przejąć kontrolę nad smartfonem" (Translation from Polish: "ATtack on Android: modem commands from the 80's standard allow you to take control of your smartphone".) Adam Golanski, *Dobreprogramy*, August 28, 2018. <https://www.dobreprogramy.pl/ATak-na-Androida-modemowe-komendy-standardu-z-lat-80-pozwalaja-przejac-kontrolę-nad-smartfonem,News,90526.html>
12. "Смартфоны ASUS, HTC, Huawei, Lenovo, LG, Samsung, Sony легко взломать технологией, созданной для древнего модема Подробнее" (Translation from Russian: "Smartphones ASUS, HTC, Huawei, Lenovo, LG, Samsung, Sony can easily crack technology created for the ancient modem.") Roman Georgiev, *CNews Russia*, August 28, 2018. http://safe.cnews.ru/news/top/2018-08-28_smartfony_asushtchuaweilenovolgsamsungsony
13. "AT Command Hitch Leaves Android Phones Open to Attack." Lindsey O'Donnell, *Threatpost*, August 27, 2018. <https://threatpost.com/at-command-hitch-leaves-android-phones-open-to-attack/136938/>
14. "New security risk for smartphones bring you a 'ghost user'." Ida Torres, *Android Community*, August 27, 2018. <https://androidcommunity.com/new-security-risk-for-smartphones-brings-you-a-ghost-user-20180827/>

15. "Android at the mercy of AT commands." Nick Farrell, *Fudzilla*, August 27, 2018. <https://fudzilla.com/news/mobile/47037-android-at-the-mercy-of-at-commands>
16. "Android-Smartphones durch Modem-Befehle verwundbar" (Translation from German: "Android Smartphones vulnerable through modem commands".) Sebastian Gruner, *Golem.de: IT-News Für Profis*, August 27, 2018. <https://www.golem.de/news/at-commands-android-smartphones-durch-modem-befehle-verwundbar-1808-136205.html>
17. "Telefony s Androidem lze ovládnout přes USB pomocí AT příkazů" (Translation from Czech: "Android phones can be controlled via USB using AT commands"). Petr Krcmar, *Root.cz Linux News*, August 27, 2018. <https://www.root.cz/clanky/telefony-s-androidem-lze-ovladnout-pres-usb-pomoci-at-prikazu/>
18. "У 11 производителей Android-смартфонов обнаружили уязвимость к АТ-командам" (Translation from Russian: "11 manufacturers of Android-smartphones found a vulnerability to AT-commands".) *Tproger*, August 27, 2018. <https://tproger.ru/news/at-commands-deface-smartphones/>
19. "Smartphones From 11 OEMs Vulnerable to Attacks via Hidden AT Commands." Catalin Cimpanu, *Bleeping Computer*, August 25, 2018. <https://www.bleepingcomputer.com/news/security/smartphones-from-11-oems-vulnerable-to-attacks-via-hidden-at-commands/>
20. "Smartphone security risk compared to 'having a ghost user on your phone'." Jonathan Griffin, *University of Florida News*, August 22, 2018. <http://news.ufl.edu/articles/2018/08/smartphone-security-risk-compared-to-having-a-ghost-user-on-your-phone.php>
21. "Ransomware 'stopped' by new software." *BBC News*, July 2016. <http://www.bbc.com/news/technology-36772461>
22. "United States and Mozambique Host Cybersecurity and Cybercrime Workshop in Maputo for Lusophone Africa." *US Department of State*, September 2015. <http://www.state.gov/r/pa/prs/ps/2015/09/247088.htm>
23. "Researchers Find Security Flaws in Developing-World Money Apps." Jennifer Valentino-Devries. *Wall Street Journal*, August 2015. <http://blogs.wsj.com/digits/2015/08/11/researchers-find-security-flaws-in-developing-world-money-apps/>
24. "Hack could let browsers use cloud to carry out big attacks on the cheap." Dan Goodin, *Ars Technica*, November 2012. <http://arstechnica.com/security/2012/11/hack-could-let-browsers-use-cloud-to-carry-out-big-attacks-on-the-cheap/>

Other Coverage

25. "Largest water utility company in US targeted by cyberattack", Geoff Harris, *The National News Desk*, 8 October 2024. <https://thenationaldesk.com/news/americas-news-now/largest-water-utility-company-in-us-targeted-by-cyberattack-american-new-jersey-based-personal-information-control-system-security-billing-pause#>
26. "Cyberattacks on healthcare systems are on the rise, including here in Florida", Joe Mario Pedersen, *Central Florida Public Media*, 10 July 2024. <https://www.cfpublish.org/health/2024-07-10/cyberattacks-healthcare-systems-rise-florida>
27. "After uptick in scam calls, LCSO urges awareness of those impersonating law enforcement", Elena

- Barrera, *Tallahassee Democrat*, 15 June 2023. <https://www.tallahassee.com/story/news/2023/06/15/scam-calls-in-tallahassee-state-of-florida-imitate-law-enforcement/70321814007/>
28. "Voters in Two States Report Threatening 'Vote for Trump' Emails", Nick Corasanitti, Ben Decker, and Stephanie Saul, *The New York Times*, 20 October 2020. <https://www.nytimes.com/2020/10/20/us/politics/florida-alaska-trump-emails.html>
 29. "What Would It Take to Shut Down the Entire Internet?" Daniel Kolitz, *Gizmodo*, 30 September 2019. <https://gizmodo.com/what-would-it-take-to-shut-down-the-entire-internet-1837984019>
 30. "Devious Ransomware Frees You If You Infect Two Other People." Lily Hay Newman, *Wired*, 13 December 2016. <https://www.wired.com/2016/12/popcorn-time-ransomware/>
 31. "UF experts: iPhone issue could set precedent." Christopher Curry and Dahlia Ghabour, *Gainesville Sun*, 26 February 2016. <http://www.gainesville.com/article/20160226/ARTICLES/160229743/-1/archive?Title=UF-experts-iPhone-issue-could-set-precedent>
 32. "Biometric Security Comes To Your Smartphone." Mitch Kroner, *Think Out Loud, Oregon Public Broadcasting*, 24 September 2013. <http://www.opb.org/radio/programs/thinkoutloud/segment/biometric-security-comes-to-your-smartphone/>

Expert Witness Experience

During the course of my expert witness consulting engagements, I have written numerous expert reports, have given eight depositions, and have given four testimonies across two jury trials, with regards to both patent infringement and invalidity in areas such as mobile device security, intrusion detection systems, portable devices, and virtualization.

Previous Academic Appointments

Associate Professor, Department of Computer and Information Science and Engineering, University of Florida, Aug. 2014 - Aug. 2021

Associate Director of the Florida Institute for Cybersecurity Research. Previous co-director of the Southeastern Security for Enterprise and Infrastructure Center.

Assistant Professor, Department of Computer and Information Science, University of Oregon, Sep. 2010 - Aug. 2014

Research and teaching classes in systems security. Founder and leader of the Oregon Systems Infrastructure Research and Information Security Laboratory. Co-director of the Center for Cyber Security.

- **Leadership:** Organizer of Computer Security Day at the University of Oregon (2014, 2013, 2012, 2011, recipient of CAS program grant for three years), liaison to Oregon Engineering and Technology Council (2010-2012), faculty advisor to UO Security Club (2012-2014), faculty liaison to Women in Computer Science (2012-2013).
- **Committee Service:** University Committee on General Science Major (2014), Graduate Education Committee (2010-2012, 2014-present), Computing Resources Committee (2011-2012), Industrial Affairs Committee (2012-2014), Strategic Planning Committee (2013).

Research Assistant, Department of Computer Science, Pennsylvania State University, Jan. 2005 - Aug. 2010

- **Senior Personnel**, NSF HECURA: Collaborative Research: Secure Provenance in High-End Computing Systems, NSF (CCF), \$307,073, Aug. 2009 - present.
- Funded by NSF HECURA grant 0621429 from Aug. 2006 - Jul. 2010, investigating security of storage systems.
- Funded by NSF grant CNS-0335241 from Aug. 2005 - Aug. 2006, investigating BGP security solutions and large-scale simulation.

Lead Graduate Student, Systems and Internet Infrastructure Security (SIIS) Laboratory, Pennsylvania State University, Sep. 2007 - Dec. 2008

- Administrative and logistical lead student in the SIIS lab. Ran weekly lab meetings of 13 members, met with students individually for mentoring and development of leadership and research skills. Responsible for most daily operational activities in the lab.

Instructor, Department of Electrical Engineering, Pennsylvania State University, Jun.-Aug. 2006

- Instructor for *EE/CSE 458*, the senior undergraduate course on computer networking.

Guest Lecturer, Department of Computer Science, Pennsylvania State University, 2005-present

- *CSE 543 (Computer Security)*: presented lectures on cryptography and public key infrastructures.
- *CSE 597A (Advanced Topics in System Security)*: lectured on virtual machine security.
- *CSE 411 (Operating Systems)*: presented lectures on storage systems.
- *CSE 545 (Advanced Network Security)*: lectured on BGP security.

Teaching Assistant, Stern School of Business, New York University, Fall 2005

- Lectured, graded, and provided logistics for Computer and Network Security course offered for MBA students.

Teaching Assistant, Department of Computer Science and Engineering, Pennsylvania State University, Fall 2004

- Held lab hours and graded for Computer System Architecture course.

Graduate Research Assistant, Department of Computer Science, Columbia University, Oct. 2001 - May 2002

- Worked on SIP security, implementing authentication into the Panasonic PINTL JAIN SIP stack.

Teaching Assistant, Department of Computer Science, Queen's University, Fall 1998

- Held office hours and graded for Introduction to Computer Science course.

Industrial Experience

Co-Founder and Chief Operating Officer, CryptoDrop LLC, 2017-2019.

- Anti-ransomware startup based in Gainesville, Florida.

Research Intern, Symantec Research Labs, Mountain View, CA, Jun - Aug. 2009

- Examined host-based validation for portable storage devices, and implemented a prototype using embedded Linux.

Research Intern, Seagate Research, Pittsburgh, PA, May - Aug. 2008

- Developed security infrastructures for distributed storage in a home user environment, focussing on distributed access control mechanisms.

Research Intern, AT&T Labs - Research, Florham Park, NJ, Dec. 2003 - Aug. 2004

- Investigated security threats in BGP and created an overview of threats and currently deployed solutions. Developed cryptographic constructions allowing efficient security solutions and performed simulations based on trace data.

Technical Intern, Flarion Technologies, Bedminster, NJ, Summer 2002

- Implemented packet diversion and IP header modification program in BSD for mobile IP packet testing.

Research Scientist, Telcordia Technologies, Morristown, NJ, Sep. 2000 - Nov. 2001

- Built and maintained an HFC lab to emulate a cable plant; researched routing and service assurance methodologies for multiple service providers accessing common transport.

Technical Specialist, UUNET, Toronto, ON, May 1999 - Aug. 2000

- Monitored and troubleshot intermediate and backbone connections across the UUNET Canadian network, as well as dealing with network security and web server issues.

Summer Intern, Royal Bank of Canada, Toronto, ON, Summer 1997, 1998

- Investigated financing opportunities for life science and high tech companies through financial and technical analysis; ported applications from mainframe to client-server environments.