https://devjayati.github.io/ | LinkedIn: www.linkedin.com/jayati-dev | Philadelphia, PA

Jayati Dev

EDUCATION

Ph.D. in Security Informatics (minor. Human-Computer Interaction) *August 2017 - August 2022*
Indiana University Bloomington, IN, USA
Committee: L. Jean Camp (chair), Apu Kapadia, Patrick Shih, Sameer Patil, Xiaojing Liao
Dissertation: Privacy-preserving Conversational Interfaces

Bachelor of Technology in Electronics and Communication Engineering *August 2013 - June 2017*
West Bengal University of Technology, Kolkata, India
Advisory Committee: Prabir Banerjee, Soumya Chatterjee
Thesis: Analysis of Linear Antenna Array

EXPERIENCE

Public Policy Researcher, Cybersecurity *November 2023 – Present*
Privacy Engineer, Technical Research and Development *June 2022 – October 2023*
Comcast, Philadelphia, PA

- Developed novel privacy and AI threat modeling solutions for security teams.
- Represent Comcast on various cyber policy efforts and standards in post-quantum cryptography, AI, privacy, and other cybersecurity issues across several collaborative working groups like MITRE, CTA, CSA, ISO, ATIS, NIST, M3AAWG, etc.
- Participate in strategic cyber policy initiatives by engaging with internal and external stakeholders, including federal partners like DHS, FCC, and the White House.

Consulting Intern, Privacy, Data Protection, and Compliance *June 2021 – August 2021*
Crowe LLP, Chicago, IL

- Developed and documented Key Risk Indicators (KRI) at an enterprise level to align with the NIST Privacy Framework.
- Analyzed Records of Processing (RoP) and cross-border assessments for large-scale pharmaceutical and consumer goods companies for updated compliance with CCPA and GDPR.
- Developed material for privacy legislation analysis and presented findings to 500+ participants in a Community of Growth (CoG) panel for company-wide training in Colorado and Nevada privacy laws.

Research Assistant, Luddy School of Informatics, Computing, and Engineering *August 2019 – August 2022*
Graduate Assistant, O'Neill School of Environmental and Public Affairs *June 2019 – August 2019*
Indiana University, Bloomington, IN

- Led research and supervised undergraduates in analysis of commercial bots, technical support and qualitative team member in eight week in-home implementation of privacy-by-design IoT system. Technical lead in "CyberCTF" for implementing pilot field studies for middle and high school students.

- Technical lead during research and implementation for two large-scale collaborative grants, “Internet of Things” and “Cyber CTF” to develop experiments for global phishing resilience testing and cybersecurity education for K-12 students.
- Facilitated qualitative and quantitative research through interviewing, data analysis, and survey instrument development for user perception of privacy in the Internet of Things devices.
- Conducted policy analysis and system design research for privacy-enhancing design at an organizational level for commercial bots and conversational platforms deployed globally. Conducted risk analysis and privacy assessment through qualitative user research and content analysis of interactions.
- Conducted survey development and design to measure security perception among older adults as part of the cybersecurity and privacy education initiative for older adults in the workforce.

Google Public Policy Fellow, National Security *June 2018 – August 2018*

Third Way, Washington D.C

- Conducted research on ongoing and future Congressional policy around cybersecurity and privacy that aided in the development of the Third Way Cyber Enforcement Initiative.

Conducted analysis of cybercrime reports and current privacy lawsuits to understand the focus on legislation around state and non-state actors.

Associate Instructor, Luddy School of Informatics, Computing, and Engineering *August 2017 – May 2019*

Project Supervisor, Luddy School of Informatics, Computing, and Engineering *August 2017 – May 2019*

Indiana University, Bloomington, IN

Provided teaching support for over 600 students and project mentoring for 16 teams for the following courses:

- INFO-I 494: Design and Development of an Information System
- INFO-I 230: Analytics of Cybersecurity
- INFO-I 231: Mathematics of Cybersecurity

Research Intern, Cryptography *June 2016 – August 2016*

Indian Statistical Institute, Kolkata, India

- Implemented existing encryption and new authenticated encryption schemes like AES-COPA and ELmD (CAESAR competition) on Intel processors.

SKILLS

Research	Quantitative	*Surveys, experiments, longitudinal studies*
	Qualitative	*Online and in-person interviews, focus groups, contextual inquiry, content analysis, thematic and discursive analysis*
	Statistical Analysis	*Hypothesis testing, effect sizes, factor analysis, regression*
	Design	*Usability testing, prototyping, participatory design, observation, case studies*
	Social Media Mining/ Machine Learning	*Latent Dirichlet Analysis (LDA), Linguistic Inquiry and Word Count (LIWC), Supervised Learning Algorithms*
Policy Analysis		

Languages	R, Python, Java, Web Development (HTML, CSS, PHP, SQL)
Certifications	OneTrust, Comcast AI Academy, CAIDP AI Policy Clinic Certification, Graduate Teaching Apprenticeship (Associate Level)

MENTORSHIP

Mentor Collective	*2024*
Graduate Philly Seminar on Internet Safety	*2021 – 2022*
UXperience Privacy Hackathon, University of Toronto	*2020*
Undergraduate Research Opportunities, Center for Women Technology, Indiana University	*2019*
Women in Engineering, Ivy Tech Community College	*2018 – 2019*
Computer Science and Informatics Mentorship Program - Shivani Sadam, Jonathan Cheng, Meera Iyer, Brandon Flinn, Max Harms, Christa Abar, Amanda King, David Hume, Shea Tuli, Ebuka Egbunam, Tessa Imperial	*2017 – 2022*

AWARDS/ FELLOWSHIPS

Comcast Cybersecurity Award	*2023*
Comcast Governance, Risk, and Compliance Ace Award	*2023*
Indian University Luddy Summer Research Award	*2021*
Women in Cybersecurity Scholarship	*2018, 2019, 2021*
Center for Women in Technology Mentor Fellowship	*2018*
Google Public Policy Fellowship	*2018*

SERVICE

Leadership Roles

Vice-chair, Future of Cryptography Working Group, CableLabs	*2024*
Workshop Organizer, Emerging Tech in Communications Workshop, TPRC	*2024*
Workshop Chair, Workshop on Child Online Safety and Harms (COSH) at EICC	*2023 – Present*
Workshop Chair, Workshop on Kids' Online Privacy and Security (KOPS) at SOUPS	*2022 – Present*
Associate Chair, CHI Late-Breaking Works	*2020 – 2023*
Department Editor, ACM XRDS	*2019 – 2022*

Peer-Reviewing

Program Committee Member, SDIoTSec at NDSS	*2024*
Program Committee Member, Workshop on Usable Security (USEC)	*2020 – 2023*
Program Committee Member, Preparing Future Faculty (PFF) Conference	*2019, 2021*
Reviewer, ACM Special Issue on Generative AI	*2024*
Reviewer, Computer Supported Cooperative Work (CSCW)	*2021*
Reviewer, ACM CHI Papers, Extended Abstracts, Alt.Chi	*2019 – 2021*
Reviewer, International Journal of Human-Computer Interaction (IJHCI)	*2021, 2023, 2024*
Reviewer, Computers in Human Behavior Reports	*2021*
Reviewer, Social Media and Society (SM&S)	*2021*

Reviewer, Tangible, Embedded, and Embodied Interaction (TEI) *2020*

Reviewer, ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) *2020*

Reviewer, International Conference on Multimodal Interaction (ICMI) *2020*

Community Memberships

WICT Network *2024 – Present*

NIST Privacy Working Group *2021*

ACM US Technology and Policy Committee *2021 – Present*

National Center for Women Information Technology *2020 – Present*

TALKS

"Getting Cable Quantum Ready", President's National Telecom Advisory Committee (NSTAC) *2024*
"Getting Cable Quantum Ready", National Cable and Television Association (NCTA)
"How to Threat Model the ML Dragon?", Grace Hopper Conference (GHC)
"xCompass Update", SOUPS Workshop on Privacy Threat Modeling (WPTM)
"Building Guardrails in AI Systems with Threat Modeling", ACM CS&Law
"Building Guardrails in AI Systems with Threat Modeling", M3AAWG 60th General Meeting
"How to Threat Model the ML Dragon?" Building Systematic GuardRails Against Cybersecurity Threats to ML Models", Grace Hopper Conference (GHC) (upcoming)
"AI Risk Management: Adopt and Scale AI Threat Detection", Executive Women's Forum *2023*
"Converging Digital Disruptors and Media Industry Security", TVNewsCheck Broadcasters' Retreat
"Models of Applied Privacy", ACM CHI
"Models of Applied Privacy", Carnegie Mellon University
"Models of Applied Privacy", SOUPS Workshop on Privacy Threat Modeling
"Putting Privacy on the MAP", DayofShecurity
"Putting Privacy on the MAP", PEPR
"Privacy and Respectful Discourse in Chatbots", PEPR *2022*
"A Tale of Two Platforms: Understanding Privacy through Computational Social Science over Twitter and Reddit", WiCyS *2021*
"Colorado Privacy Act", Community of Growth, Crowe LLP
"Privacy in Chatbots", Conference on Conversational User Interfaces (CUI) *2020*
"Barriers from Stopping Unwanted Emails", ACM CHI
"WhatsApp Privacy in India and Saudi Arabia", USENIX Usable Privacy and Security (SOUPS)
"Researching at the Margins", Center for Women in Technology, Indiana University Bloomington *2018*

MEDIA

Readers' Digest. Does Unsubscribing from Emails Work—and Is It Safe to Do. 2024. https://www.rd.com/article/does-unsubscribing-from-emails-work-and-is-it-safe-to-do/

New York Times. *Email Unsubscribe Services Don't Really Work*. Follow This (Free) Advice Instead. 2023. https://www.nytimes.com/wirecutter/reviews/best-email-unsubscribe-service/

TVNewsCheck. Cybersecurity for Broadcasters Retreat. *Converging Digital Disruptors and Media Industry Security*. 2023. https://tvnewscheck.com/digital/article/cyber-experts-to-take-on-converging-digital-disruptors-and-media-industry-security/

Privado. Interview with a Privacy Engineer. 2023 https://www.linkedin.com/events/7094671030534717441/

PUBLICATIONS

Google Scholar Profile: https://scholar.google.com/citations?user=Cok5R-8AAAAJ

Policy Publications

2024 Standards with Open Questions regarding PQC Adoption. MITRE Post-Quantum Cryptography Coalition.
Transitioning to Quantum-Safe Cryptography: Exploring the Role and Value for Developing and Implementing a Cryptographic Bill of Materials. MITRE Post-Quantum Cryptography Coalition.
AI Threat Evaluation Working Group Report. DHS CISA Information and Communications Technology Supply Chain Risk Management. *[Upcoming]*
Garg, V. and Dev, J. AI and the Economics of Cybersecurity. USENIX :login;
Strategic Framework for Crypto Agility and Quantum Risk Assessment, *ATIS*.

Peer-reviewed Publications

2024 Dev, J., Akhuseyinoglu, N., Kayas, G., Rashidi, B., and Garg, V. (2024). Building Guardrails in AI Systems with Threat Modeling. ACM Digital Government: Research and Practice. June 2024.
Kayas, G., Evans, J., Dev, J., Rashidi, B., Garg, V. (2024). Loose Bits Sink Gits. SCTE Expo 2024.

2023 Dev, J., Rashidi, B., Garg, V. (2023). Models of Applied Privacy (MAP): A Persona Based Approach to Threat Modeling. *ACM CHI 2023*.
Abbott, J., Dev, J., Kim, D., Gopavaram, S. R., Iyer, M., Sadam, S., ... & Camp, L. J. (2023). Kids, Cats, and Control: Designing Privacy and Security Dashboards for IoT Home Devices. In *Proceedings 2023 Symposium on Usable Security. Internet Society*.
Dev, J., & Dev, S. (2023, April). "How Can I Help You?": User Perceptions of Privacy in Retail Chat Agents. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems* (pp. 1-6).

2022 J., Dev, J., Kim, D., Gopavaram, S., Iyer, M., Sadam, S., Mare, S., Ringenberg, T., Andalibi, V., Camp, L.J. (2022). Privacy Lessons Learnt from Deploying an IoT Ecosystem in the Home. *EuroUSEC 2022*.

2021 Andalibi, V., Dev, J., Kim, D., Lear, E., Camp, L.J. (2021). Is Visualization Enough? Evaluating the Efficacy of MUD-Visualizer in Enabling Ease of Deployment for Manufacturer Usage Description (MUD). *ACSAC 2021*.
Gopavaram, S., Dev, J., Das, S., and Camp, L. J. (2021). IoT Marketplace: WillingnessTo-Pay vs. Willingness-To-Accept. *WEIS 2021.*
Andalibi, V., Dev, J., Kim, D., Lear, E., Camp, L.J. (2021). Making Access Control Easy in IoT. *HAISA 2021.*
Gopavaram, S., Dev, J., Das, S., and Camp, L. J. (2021). IoT Marketplace: WillingnessTo-Pay vs. Willingness-To-Accept. *SHB 2021.*
Gopavaram, S., Dev, J., Grobler, M., Kim, D., Das, S., and Camp, L. J. (2021). CrossNational Study on Phishing Resilience.*USEC.*

2020 Dev, J., Camp, L. J. (2020). User Engagement with Chatbots: A Discursive Psychology Approach. CUI@CHI. *ACM CHI 2020.*
Dev, J., Camp, L.J. (2020). User Engagement with Chatbots: A Discursive Psychology Approach. *ACM CUI 2020.*
Dev, J., Moriano, P., Camp, L.J. (2020). Lessons Learnt from Comparing WhatsApp Privacy Concerns Across Saudi and Indian Populations.*USENIX SOUPS 2020.*
Dev, J., Rader, E., & Patil, S. (2020). Why Johnny Can't Unsubscribe: Barriers to Stopping Unwanted Emails. *ACM CHI 2020.*

2019 S Das, J Dev, LJ Camp, "Privacy Preserving Policy Framework: User-Aware and User-Driven", *Telecommunications Policy Research Conference* (Washington, DC) 20-21 Sept. 2019.
Dev, J., Das, S., Rashidi, Y., Camp, L. J. (2019). Personalized WhatsApp Privacy: Demographic and Cultural Influences on Indian and Saudi Users. *SHB 2019.*

2018 Das, S., Dev, J., Srinivasan, K. (2018). Modularity is the Key: A New Approach to Social Media Privacy Policies. *MexIHC 2018.*

Dev, J., Das, S., Camp, L. J. (2018). Privacy Practices, Preferences, and Compunctions: WhatsApp Users in India. *HAISA 2018.* (p. 135).

Dev, J., Das, S., Srinivasan, K. (2018). Modularity is the Key: A New Approach to Social Media Privacy Policies. 3rd Workshop on Inclusive Privacy and Security (WIPS), *SOUPS.* Das, S., Dev, J. (2018). Peeling the Onion: A Literature Review on Usability of TOR. *In InfoSocial 2018.*

2017 Sanchari Das, Andrew Dingman, Gianpaolo Russo, Jayati Dev, Olivia Kenny, & L Jean Camp, "A Qualitative Study on Usability and Acceptability of Yubico Security Key",*IEEE STAST*, 4 December 2017 (Orlando, FL) Extended version presented at Financial Cryptography 2018.

Technical Reports and Contributions

2023 Strategic Framework for Crypto Agility and Quantum Risk Assessment, *Alliance for Telecommunications Industry Solutions.*

2021 S. Gopavaram, J. Dev, E. Gumusel, L.J. Camp, "Going Beyond Labels". Response to NIST Calls for Submission to the Workshop on In Workshop and Call for Papers on Cybersecurity Labeling Programs for Consumers: Internet of Things (IoT), September 2021.

Dev, J. (2020). Discussing Privacy and Surveillance on Twitter: A Case Study of COVID19. *ArXiv.*

2019 Mehta, I., & Dev, J. (2019). Taking Action on Cyber Enforcement: Assessing US Legislative Progress in the 115th Congress. *Third Way Cyber Enforcement Initiative.*

Public Projects

2023 GitHub - Comcast/ProjectGuardRail: AI/ML applications have unique security threats. Project GuardRail is a set of security and privacy requirements that AI/ML applications should meet during their design phase that serve as guardrails against these threats. These requirements help scope the threats such applications must be protected against.

2022 GitHub - Comcast/MAP: This repository hosts a persona based privacy threat modeling solution called Models of Applied Privacy or MAP.

2020 Cyber Learning Platform for K-12 Students.