MINJUN LONG

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EDUCATION

UNIVERSITY OF VIRGINIA Charlottesville, VA

Bachelor of Arts in Computer Science (GPA: 3.95/4.0), Psychology (GPA 3.82/4.0) 2018 – 2022

PhD Candidate, Computer Science (GPA: 4.0/4.0) 2022 –2027 (Expected)

RESEARCH INTEREST

My research interests lie in empirical security and privacy research, with a focus on evaluation, measurement, and failure analysis of security- and privacy-critical systems. I am particularly interested in detection engineering and detection effectiveness, including the evolution and maintenance of intrusion detection rules, security evaluation methodology, and the gap between claimed guarantees and real-world system behavior. More broadly, I am interested in trustworthy system evaluation for data-driven defenses, including multimodal models and large language models, with an emphasis on safety, reliability, and alignment-oriented evaluation.

RESEARCH EXPERIENCE

Evaluating Host-based Intrusion Detection Systems 2025 – Present

- Writing a paper on signature-based HIDS by analyzing evolution of rule sets in the wild.
- Developing simulated testing environments and methods to fairly compare various learning-based HIDS.

Audio-Visual Deepfake Detection 2024 – 2025

- Experimented methods for detecting deepfake videos by capture dynamic, speech-related temporal information in a unified audio-visual representation. (https://elena6918.github.io/blog/2025/deepfake/)

Evaluating Google's Protected Audience Protocol 2023 – 2024

- Introduced a threat model to analyze how well the protocol design meets its privacy goals.
- Evaluated three scenarios in which advertisers may use the protocol to track users between sessions.

Automated Large-scale Analysis of Privacy Law Violations 2022 – 2023

- Built a new policy dataset and developed a deep learning solution to evaluate privacy laws (e.g. GDPR) compliance in real-world online data practices.

OAuth Protocol Vulnerability Analysis 2021 – 2022

- Analyzed OpenID Connect protocols to identify vulnerabilities in open-source implementations.

Measurement of Personal Information Disclosure in Online Health Communities 2020 – 2021

- Crawled several mobile apps and websites related to online health communities with Python.
- Built a system to analyze over 1.8M posts and automatically detect sensitive data leakage.

Privacy-Preserving Image Processing 2019 – 2020

- Developed a privacy-preserving video encryption system that detects and encrypts human faces in video footage using random keys to safeguard identity information.
- Optimized the system using biometrical keys generated by the eigenface algorithm, enabling decryption of only the face that matches a provided target face image.

PUBLICATIONS

PETS 2024: Long, M., & Evans, D. "Evaluating Google's Protected Audience Protocol". 24th Privacy Enhancing Technologies Symposium.

PETS 2023: Shezan, F. H., Long, M., Hasani, D., Wang, G., & Tian, Y. "SenRev: Measurement of Personal Information Disclosure in Online Health Communities". 23th Privacy Enhancing Technologies Symposium.

ACM WPES 2022: Rahat, T. A., Long, M., & Tian, Y. (2022, November). "Is your policy compliant? a deep learning-based empirical study of privacy policies' compliance with gdpr". 21st Workshop on Privacy in the Electronic Society.

SELECTED PROJECTS

PREPARE Organization Remote

Co-Founder and Director of Technology 2020 - 2021

- Built a non-profit addressing post-COVID mental health crisis, developing a mobile app with React Native, Expo, and AWS.
- Incubated at Harvard Innovation Lab and Lemann Program on Creativity and Entrepreneurship.

Plannable Organization Charlottesville, VA

Co-Founder and UI Developer 2019 - 2020

- Proposed auto-scheduling project for UVA students and won the Best Beginner Prize in 2019 UVA Hackathon with the prototype.
- Developed user interface with Vue and Bootstrap; promoted the app to over 1000 users in six months.

INDUSTRY EXPERIENCE

Anhui Wantong Technology Hunan, China

Software Engineer Intern 2019 Summer

- Designed database structure based on collected data and implemented using MySQL
- Developed websites for Hunan Public Security Department with Spring MVC (front-end programming) and coded integrated monitoring module in team (back-end programming)

ACADEMIC SERVICE

Artifact Reviewer: PETS 2025, SIGCOMM 2025, PETS 2026, Usenix 2026

External Peer Reviewer: IEEE IoT-J 2024, IEEE TDSC 2024, IEEE TDSC 2025