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

Data privacy, machine learning, privacy-preserving models, multimodal model analysis, mental health tech

RESEARCH EXPERIENCE

Identity-Based Deepfake Video Detection *[multimodal machine learning]* 2024 – Present

- Developing a novel audio-visual deepfake detection framework, analyzing speaker-specific biological traits and mannerisms for identity verification.

Evaluating Google's Protected Audience Protocol *[data privacy, network protocol]* 2023 – 2024

- Summarized the protocol and highlighted the interaction through APIs among its components by actively communicating with Google and implementing the protocol through the testing period.
- Proposed 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 *[data privacy, machine learning]* 2022 – 2023

- Built a new large-scale policy dataset and developed a CNN-based model with active learning to evaluate privacy laws (e.g. GDPR) compliance in data practices.

OAuth Protocol Vulnerability Analysis *[network protocol]* 2021 – 2022

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

Measurement of Personal Data Leakage in Online Platform *[data privacy, machine learning]* 2020 – 2021

- Crawled several mobile apps and websites related to online health communities with Python.
- Built a system to analyze over 1.8M multi-modal and multi-lingual data elements and automatically detect sensitive data leakage with multiple deep learning models.

Privacy-Preserving Image Processing *[privacy-preserving model]* 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, developed a mobile app with React Native, Expo, and AWS.
- Incubated at Harvard Innovation Lab and ranked 6th/2000 in 2021 Global Health & Innovation Conference Final Competition.

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
External Peer Reviewer: IEEE IoT-J 2024, IEEE TDSC 2024
Teaching: Network Privacy, Introduction to Cryptography

SKILLS & INTERESTS

Programming: Python, C++, HTML/CSS, JavaScript, MySQL, Git, AWS, OCaml
Language: English, Chinese, French (Conversational)
Interests: Piano, Fencing, Swimming, Singing, Tennis