

JASON DAVID LIU

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RESEARCH INTERESTS

Security & Privacy; Operating Systems; Data Provenance

EDUCATION

University of Illinois at Urbana-Champaign, Grainger College of Engineering
Ph.D., Department of Computer Science
GPA: 3.92/4.0

Expected May 2025

Cornell University, College of Engineering

May 2019

B.S., Robert Frederick Smith School of Chemical and Biomolecular Engineering

B.S., Department of Computer Science

GPA: 3.84/4.0

AWARDS & HONORS

3rd Place in Individual Points Scored, TracerFire X, UIUC

Mar 2022

Magna cum laude, Cornell University

May 2019

Engineering Dean's List, Cornell University

Fall 2015 – Spring 2019

2nd Place Best Poster Award, SRC TECHCON 2018

September 2018

ELI Undergraduate Research Award, Cornell University

Jan 2017 – May 2018

PUBLICATIONS

- C6. **Jason Liu**, Muhammad Adil Inam, Akul Goyal, Andy Riddle, Kim Westfall, and Adam Bates. What We Talk About When We Talk About Logs: Understanding the Effects of Dataset Quality on Endpoint Threat Detection Research. In *2025 IEEE Symposium on Security and Privacy (SP)*, 2025.
- C5. Muhammad Adil Inam, Yinfang Chen, Akul Goyal, **Jason Liu**, Jaron Mink, Noor Michael, Sneha Gaur, Adam Bates, and Wajih Ul Hassan. SoK: History is a Vast Early Warning System: Auditing the Provenance of System Intrusions. In *2023 IEEE Symposium on Security and Privacy (SP)*, pages 2620–2638, Los Alamitos, CA, USA, May 2023. IEEE Computer Society.
- C4. Muhammad Adil Inam, Akul Goyal, **Jason Liu**, Jaron Mink, Noor Michael, Sneha Gaur, Adam Bates, and Wajih Ul Hassan. FAuST: Striking a Bargain between Forensic Auditing's Security and Throughput. In *Proceedings of the 38th Annual Computer Security Applications Conference, ACSAC '22*, page 813–826, New York, NY, USA, 2022. Association for Computing Machinery.
- C3. **Jason Liu**, Anant Kandikuppa, and Adam Bates. Transparent DIFC: Harnessing Innate Application Event Logging for Fine-Grained Decentralized Information Flow Control. In *2022 IEEE European Symposium on Security and Privacy (EuroS&P)*, pages 487–501, 2022.
- C2. Noor Michael, Jaron Mink, **Jason Liu**, Sneha Gaur, Wajih Ul Hassan, and Adam Bates. On the Forensic Validity of Approximated Audit Logs. In *Annual Computer Security Applications Conference, ACSAC '20*, page 189–202, New York, NY, USA, 2020. Association for Computing Machinery.
- C1. Mardochee Reveil, Hsien-Lien Huang, Huang-Ta Chen, **Jason Liu**, Michael O. Thompson, and Paulette Clancy. *Ab Initio* Studies of the Diffusion of Intrinsic Defects and Silicon Dopants in Bulk InAs. *Langmuir*, 33(42):11484–11489, Sep 2017.

POSTERS

- P3. **Jason Liu**, Andy Riddle, Kim Westfall, and Adam Bates. What Behaviors Are in Your System Log Dataset? In *2023 IEEE Symposium on Security and Privacy (SP)*, 2023.
- P2. **Jason Liu**, Blaire Sorenson, Henry Herbol, and Paulette Clancy. Poster: Modeling Lead-Halide Solubility for Better Solar Cells. In *SRC TECHCON 2018*, 2018.
- P1. **Jason Liu**, Blaire Sorenson, Henry Herbol, and Paulette Clancy. Poster: Understanding Solvent Blend Packing Around Lead Ions for Solar Cell Processing. In *2018 ASEE St. Lawrence Section Meeting*, 2018.

INVITED TALKS

- T3. **FAuST: Striking a Bargain between Forensic Auditing's Security and Throughput**, 38th Annual Computer Security Applications Conference (ACSAC), December 5-9, 2022.
- T2. **Transparent DIFC: Harnessing Innate Application Event Logging for Fine-Grained Decentralized Information Flow Control**, 7th IEEE European Symposium on Security & Privacy (EuroS&P), June 6-10, 2022.
- T1. **Modeling Lead-Halide Solubility for Better Solar Cells**, SRC TECHCON 2018, September 16-18, 2018.

PROFESSIONAL EXPERIENCE

- Research Intern**, ByteDance May 2024 – Aug 2024
Prototyped assisted security analysis workflows using LLMs
Refined and evaluated alert triage system to maximize F1 score
- Research Intern**, Sandia National Laboratories May 2023 – Dec 2023
Developed methods for differential privacy, industrial control system (ICS) datasets
- Research Intern**, StellarCyber May 2021 – Dec 2021
Focused on methods to replicate realistic attack scenarios
Investigated recent attack reports and created framework to automate red team tools

ACADEMIC EXPERIENCE

- Graduate Research Assistant**, University of Illinois at Urbana-Champaign Aug 2020 – present
Secure & Transparent Systems Laboratory, led by Prof. Adam Bates
- Graduate Teaching Assistant**, University of Illinois at Urbana-Champaign Jan 2021 – May 2021
Operating Systems Design Aug 2019 – May 2020
Interactive Computer Graphics
- Undergraduate Teaching Assistant**, Cornell University Jan 2019 – Mar 2019
UNIX Tools & Scripting Aug 2018 – Dec 2018
Computer Graphics May 2018 – Dec 2018
Heat and Mass Transfer Aug 2016 – May 2018
Objected-Oriented Programming and Data Structures
- General Chemistry Academic Excellence Workshop**, *Facilitator*, Cornell University Aug 2016 – Dec 2016

SERVICE

- External Reviewer**
EuroS&P 2022
- CS SAIL Teacher**, University of Illinois at Urbana-Champaign Apr 2023, 2024
Cybersecurity Ninja Training