Thomas M. Siebel Center for Computer Science 201 North Goodwin Avenue Urbana, IL 61801-2302

jdliu2@illinois.edu +1 (315) 766-3689 jasondliu.com

# **Research Interests**

Security & Privacy; Operating Systems; Data Provenance

### EDUCATION

**University of Illinois at Urbana-Champaign**, Grainger College of Engineering Expected May 2026 Ph.D., Department of Computer Science GPA: 3.92/4.0

May 2019

Cornell University, College of Engineering 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 Magna cum laude, Cornell University Engineering Dean's List, Cornell University 2nd Place Best Poster Award, SRC TECHCON 2018 ELI Undergraduate Research Award, Cornell University

## CONFERENCE PUBLICATIONS

- 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), 2023.
- Muhammad Adil Inam, Akul Goyal, Jason Liu, Jaron Mink, Noor Michael, Sneha Gaur, Adam Bates, and Wajih Ul C4. 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.
- Noor Michael, Jaron Mink, Jason Liu, Sneha Gaur, Wajih Ul Hassan, and Adam Bates. On the Forensic Validity of C2. Approximated Audit Logs. In Annual Computer Security Applications Conference, ACSAC '20, page 189–202, New York, NY, USA, 2020. Association for Computing Machinery.
- Mardochee Reveil, Hsien-Lien Huang, Huang-Ta Chen, Jason Liu, Michael O. Thompson, and Paulette Clancy. Ab C1. Initio Studies of the Diffusion of Intrinsic Defects and Silicon Dopants in Bulk InAs. Langmuir, 33(42):11484–11489, Sep 2017.

# POSTERS

- Jason Liu, Andy Riddle, Kim Westfall, and Adam Bates. What Behaviors Are in Your System Log Dataset? In 2023 P3. 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.

Mar 2022 May 2019 Fall 2015 – Spring 2019 September 2018 Jan 2017 – May 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, Sandia National Laboratories	May 2023 – Present
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	
Secure & Transparent Systems Laboratory, led by Prof. Adam Bates	$\begin{array}{c} {\rm Aug} \ 2020-{\rm Dec} \ 2020\\ {\rm Aug} \ 2021-{\rm present} \end{array}$
Graduate Teaching Assitant, University of Illinois at Urbana-Champaign	
Operating Systems Design	Jan 2021 – May 2021
Interactive Computer Graphics	Aug 2019 – May 2020
Undergraduate Teaching Assistant, Cornell University	
UNIX Tools & Scripting	Jan 2019 – Mar 2019
Computer Graphics	Aug $2018 - Dec \ 2018$
Heat and Mass Transfer	May $2018 - Dec \ 2018$
Objected-Oriented Programming and Data Structures	Aug 2016 – May 2018
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	
Cybersecurity Ninja Training	Apr 2023