

## Research Interests

Security, Transparency, and Usability of Complex Systems and Emerging Technologies.

## Education

- Ph.D. in Computer Science, University of California at San Diego, 2025 (expected)  
*Advisors:* [Stefan Savage](#) and [Geoffrey M. Voelker](#)  
*Thesis Committee:* [Terrence August](#), [KC Claffy](#) (CAIDA), and [David D. Clark](#) (MIT)
- M.S. in Computer Science, University of Chicago, 2018  
*Advisor:* [Blase Ur](#)
- B.S. in Software Engineering, Beijing Institute of Technology, 2016

## Awards & Honors

- Best Paper Award, the IEEE European Symposium on Security and Privacy (2023)
- Finalist, CSAW Applied Research Competition (2023)
- IRTF Applied Networking Research Prize (2021)

## Publications

† denotes equal contribution

## Work in Progress

- [A1] Alex Bellon, Miro Haller, Andrey Labunets, **Enze Liu**, and Stefan Savage, *An Empirical Analysis on the Use and Reporting of National Security Letters*, Under Submission, 2024. [Online]. Available: <https://arxiv.org/pdf/2403.02768>,  
– **Short Presentation at CSLAW 24.**
- [A2] **Enze Liu**, Elisa Luo, Jian Chen Yan, Katherine Izhikevich, Stewart Grant, Deian Stefan, Geoffrey M. Voelker, Stefan Savage, *Count of Monte Crypto: Accounting-based Defenses for Cross-Chain Bridges*, Under Submission, 2024. [Online]. Available: <https://arxiv.org/pdf/2410.01107>.
- [A3] **Enze Liu**†, Elisa Luo†, Shawn Shan, Geoffrey M. Voelker, Ben Y. Zhao, Stefan Savage, *Content Owners' Actions and Attitudes Towards AI-Related Crawlers*, Under Submission, 2024.

## Conference and Journal Publications

- [C1] **Enze Liu**, George Kappos, Eric Mugnier, Luca Invernizzi, Stefan Savage, David Tao, Kurt Thomas, Geoffrey M. Voelker, and Sarah Meiklejohn, “Give and Take: An End-To-End Investigation of Give-away Scam Conversion Rates,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2024.
- [C2] Lu Sun, Hengyuan Zhang, **Enze Liu**, Mingyang Liu, and Kristen Vaccaro, “NewsGuesser: Using Curiosity to Reduce Selective Exposure,” *Proceedings of the ACM on Human-Computer Interaction (CSCW)*, 2024.

- [C3] Sumanth Rao, **Enze Liu**, Grant Ho, Geoffrey M. Voelker, and Stefan Savage, “Unfiltered: Measuring Cloud-based Email Filtering Bypasses,” in *Proceedings of the ACM Web Conference (WWW)*, 2024, – **Oral Presentation**.
- [C4] **Enze Liu**, Gautam Akiwate, Mattijs Jonker, Ariana Mirian, Grant Ho, Geoffrey M. Voelker, and Stefan Savage, “Forward Pass: On the Security Implications of Email Forwarding Mechanism and Policy,” in *Proceedings of the IEEE European Symposium on Security and Privacy (EuroS&P)*, IEEE, 2023, – **Best Paper Award**.  
– **Finalist, CSAW Applied Research Competition 2023**.
- [C5] **Enze Liu**, Lu Sun, Alex Bellon, Grant Ho, Geoffrey M. Voelker, Stefan Savage, and Imani N.S. Munyaka, “Understanding the Viability of Gmail’s Origin Indicator for Identifying the Sender,” in *Proceedings of the Symposium on Usable Privacy and Security (SOUPS)*, 2023.
- [C6] **Enze Liu**, Sumanth Rao, Sam Havron, Grant Ho, Stefan Savage, Geoffrey M. Voelker, and Damon McCoy, “No Privacy Among Spies: Assessing the Functionality and Insecurity of Consumer Android Spyware Apps,” *Proceedings on Privacy Enhancing Technologies (PoPETS)*, 2023, – **Invited Presentation at FTC PrivacyCon 2024**.
- [C7] Audrey Randall, **Enze Liu**, Ramakrishna Padmanabhan, Gautam Akiwate, Geoffrey M. Voelker, Stefan Savage, and Aaron Schulman, “Home is Where the Hijacking is: Understanding DNS Interception by Residential Routers,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2021.
- [C8] **Enze Liu**, Gautam Akiwate, Mattijs Jonker, Ariana Mirian, Stefan Savage, and Geoffrey M. Voelker, “Who’s Got Your Mail? Characterizing Mail Service Provider Usage,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2021.
- [C9] Audrey Randall, **Enze Liu**, Gautam Akiwate, Ramakrishna Padmanabhan, Geoffrey M. Voelker, Stefan Savage, and Aaron Schulman, “Trufflehunter: Cache Snooping Rare Domains at Large Public DNS Resolvers,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2020, – **IRTF Applied Networking Research Prize**.
- [C10] **Enze Liu**, Amanda Nakanishi, Maximilian Golla, David Cash, and Blase Ur, “Reasoning Analytically about Password-Cracking Software,” in *Proceedings of the IEEE Symposium on Security and Privacy (S&P)*, IEEE, 2019.

## Workshop Publications

- [W1] Anil Yelam, Stewart Grant, **Enze Liu**, Radhika Niranjana Mysore, Marcos K Aguilera, Amy Ousterhout, and Alex C. Snoeren, “Limited Access: The Truth Behind Far Memory,” in *Proceedings of the Workshop on Resource Disaggregation and Serverless (WORDS)*, 2023.

## Service

### Technical Program Committees

- External Reviewer, ACM Internet Measurement Conference, 2024
- Reviewer, ACM Web Conference, 2024
- External Reviewer, EAI SecureComm, 2023
- Artifact Evaluation Committee, SIGCOMM, 2022

### Department and University Service

- UCSD CSE Ph.D. Visit Day Organizing Committee, 2020 - 2024  
Department-wide Lead, 2022 - 2024  
Lead for Systems, Networking, and Security Areas, 2021 - 2022
- UCSD CSE Ph.D. Student Admissions Committee, 2020 – 2023

## Advising and Mentoring

### Research

- [Elisa Luo](#) (Ph.D. student at UCSD, 2023 - 2024)  
Publication: [\[A2\]](#) and [\[A3\]](#)
- [Jian Chen Yan](#) (Undergraduate student at UCSD, 2023 - 2024)  
Publication: [\[A2\]](#)
- [Sumanth Rao](#) (Master's then Ph.D. student at UCSD, 2021 - 2023)  
Publication: [\[C3\]](#) and [\[C6\]](#)

### Graduate School Application

- [Detravious Jamari Brinkley](#)  
B.S. at Claffin University, M.S. at USC, now Ph.D. student at University of Florida.
- [Lucas Resck](#)  
B.S. and M.S. at Fundação Getulio Vargas, now Ph.D. student at University of Cambridge.

### Selected Invited Talks

- Forward Pass: On the Security Implications of Email Forwarding Mechanism and Policy  
Cornell Tech Security Seminar, Oct. 2023  
M3AAWG 59th (one-hour talk), Sep. 2023  
Stanford Security Seminar, May 2023  
Google, Mar. 2023  
M3AAWG 57th (lightning talk), Feb. 2023  
ICANN DNS Workshop, Mar. 2022

### Teaching Experience

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| – Teaching Assistant, Blockchain Security (CSE 291), UCSD                                      | Spring 2024 |
| – Guest Lecture, Blockchain Security (CSE 291), UCSD<br><i>Security of Cross-chain Bridges</i> | Spring 2024 |
| – Guest Lecture, Social Aspects of Information Technology (IS 202), UIUC<br><i>Privacy 101</i> | Spring 2024 |

### References

#### [Stefan Savage](#)

Professor of Computer Science and Engineering  
University of California, San Diego

#### [Geoffrey M. Voelker](#)

Professor of Computer Science and Engineering  
University of California, San Diego

**Deian Stefan**

Associate Professor of Computer Science and Engineering  
University of California, San Diego

**Damon McCoy**

Professor of Computer Science and Engineering  
New York University