

Research Interests

Security, Usability, and Transparency of Composite 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

Work in Progress

- [A1] A. Bellon, M. Haller, A. Labunets, **Enze Liu**, and S. 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**, E. Luo, J. C. Yan, K. Izhikevich, S. Grant, D. Stefan, G. M. Voelker, and S. Savage, *Count of Monte Crypto: Accounting-based Defenses for Cross-Chain Bridges*, Under Submission, 2024. [Online]. Available: <https://arxiv.org/pdf/2410.01107>.

Conference and Journal Publications

- [C1] **Enze Liu**, G. Kappos, E. Mugnier, L. Invernizzi, S. Savage, D. Tao, K. Thomas, G. M. Voelker, and S. Meiklejohn, “Give and Take: An End-To-End Investigation of Giveaway Scam Conversion Rates,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2024.

- [C2] S. Rao, **Enze Liu**, G. Ho, G. M. Voelker, and S. Savage, “Unfiltered: Measuring Cloud-based Email Filtering Bypasses,” in *Proceedings of the ACM Web Conference (WWW)*, 2024, – **Oral Presentation**.
- [C3] L. Sun, H. Zhang, **Enze Liu**, M. Liu, and K. Vaccaro, “NewsGuesser: Using Curiosity to Reduce Selective Exposure,” *Proceedings of the ACM on Human-Computer Interaction (CSCW)*, 2024.
- [C4] **Enze Liu**, G. Akiwate, M. Jonker, A. Mirian, G. Ho, G. M. Voelker, and S. 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**, S. Rao, S. Havron, G. Ho, S. Savage, G. M. Voelker, and D. McCoy, “No Privacy Among Spies: Assessing the Functionality and Insecurity of Consumer Android Spyware Apps,” *Proceedings on Privacy Enhancing Technologies (PoPETS)*, 2023, – **FTC PrivacyCon 2024**.
- [C6] **Enze Liu**, L. Sun, A. Bellon, G. Ho, G. M. Voelker, S. Savage, and I. N. 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.
- [C7] **Enze Liu**, G. Akiwate, M. Jonker, A. Mirian, S. Savage, and G. M. Voelker, “Who’s Got Your Mail? Characterizing Mail Service Provider Usage,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2021.
- [C8] A. Randall, **Enze Liu**, R. Padmanabhan, G. Akiwate, G. M. Voelker, S. Savage, and A. Schulman, “Home is Where the Hijacking is: Understanding DNS Interception by Residential Routers,” in *Proceedings of the ACM Internet Measurement Conference (IMC)*, 2021.
- [C9] A. Randall, **Enze Liu**, G. Akiwate, R. Padmanabhan, G. M. Voelker, S. Savage, and A. 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**, A. Nakanishi, M. Golla, D. Cash, and B. Ur, “Reasoning Analytically about Password-Cracking Software,” in *Proceedings of the IEEE Symposium on Security and Privacy (S&P)*, IEEE, 2019.

Workshop Publications

- [W1] A. Yelam, S. Grant, **Enze Liu**, R. N. Mysore, M. K. Aguilera, A. Ousterhout, and A. 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](#)]
- [Jian Chen Yan](#) (Undergraduate student at UCSD, 2023 - 2024)
 Publication: [[A2](#)]
- [Sumanth Rao](#) (Master’s then Ph.D. student at UCSD, 2021 - 2023)
 Publication: [[C2](#)] and [[C5](#)]

Graduate School Application

- [Detravious Jamari Brinkley](#)
 B.S. at Claflin 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

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

References

Stefan Savage

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University of California, San Diego

Geoffrey M. Voelker

Professor of Computer Science and Engineering
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Deian Stefan

Associate Professor of Computer Science and Engineering
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Damon McCoy

Professor of Computer Science and Engineering
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