

SUMANTH RAO

Ph.D. Candidate, Computer Science · University of California, San Diego

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RESEARCH INTERESTS

Empirical security, Internet measurement, email and messaging security, network security, AI security.

SKILLS

Python, C++, Rust · Zeek, Wireshark, ZMap, Censys · Ghidra, JADX · Prompt-injection, Cyber ranges.

EDUCATION

2021 – exp. 2027 **Ph.D. Computer Science** University of California, San Diego
Advisors: Stefan Savage and Geoffrey M. Voelker

2016 – 2020 **B.Tech. Computer Science** PES University, Bengaluru, India
Advisor: Gowri Srinivasa · First Class with Honors · GPA 9.6/10

EXPERIENCE

Jun – Sep 2026 **Google, Gmail Delivery Security · Student Researcher** Mentor: Weihaw Chaung
– Built an observatory joining WHOIS and pDNS to catch SPF hijacks in 200M domains daily.

Jun – Sep 2025 **Corelight Labs · Research Intern** Mentors: Yacin Nadji, Vern Paxson
– Built Zeek detection of DCSync/DCShadow attacks by fingerprinting DRSUAPI replication.

Jun – Sep 2022 **Google, Virtual Cluster · Software Engineering Intern**
– Reduced web-proxying overhead $7\times$ in Google's sandboxed mock production environment.

2020 – 2021 **Citrix, Licensing · Software Engineer I**
– Cut License Server test resource use by up to 50% with Docker microservices on Xen.

2019; 2022 – 26 **Zulip Open Source Project · Volunteer Contributor** Google Summer of Code
– Developed the terminal client (GSoC 2019) and later mentored five GSoC students.

SELECTED PUBLICATIONS

Lost in Translation: Text Message Spoofing via Email – Distinguished Paper Award
Sumanth Rao, Ye Shu, Stefan Savage, Aaron Schulman, Geoffrey M. Voelker, Enze Liu. *IEEE S&P (Oakland)*, 2026.

Patient Care Technology Disruptions Associated With the CrowdStrike Outage
Jeffrey L. Tully*, Sumanth Rao*, Isabel Straw, Rodney A. Gabriel, Chris Longhurst, Stefan Savage, Geoffrey M. Voelker, Christian J. Dameff. *JAMA Network Open*, 2025. *equal contribution

Unfiltered: Measuring Cloud-based Email Filtering Bypasses
Sumanth Rao, Enze Liu, Grant Ho, Geoffrey M. Voelker, Stefan Savage. *ACM Web Conference (WWW)*, 2024.

BLE Theft Auto: Evaluating the Security of Aftermarket BLE-based Automotive Remote Control Systems
Jerry Yu*, Yibo Wei*, Sumanth Rao, Mohak Vaswani, Jefferson Chien, Christian Dameff, Nishant Bhaskar, Aaron Schulman. *USENIX Security*, 2026.

No Privacy Among Spies: Assessing the Functionality and Insecurity of Consumer Android Spyware Apps
Enze Liu, Sumanth Rao, Sam Havron, Grant Ho, Stefan Savage, Geoffrey M. Voelker, Damon McCoy. *PETS*, 2023.

ACHIEVEMENTS

– **Distinguished Paper Award**, IEEE Symposium on Security and Privacy (Oakland). 2026

– CSE Doctoral Award for Excellence in Service and Leadership, UC San Diego. 2026

– Finalist, CSAW Applied Research Competition. 2026

– Top 5, BSides San Diego CTF (2025); Finalist, Stanford DEFCON NatSec Hackathon (2024). 2024 – 2025

– JN Tata Endowment Scholar (national graduate scholarship). 2021 – 2022

– CVE-2025-46311 (Apple iOS), CVE-2026-18411 (CISA); talks FTC PrivacyCon.

– Provisional U.S. Patent 63/674,158, “Digital Availability Surveillance Method”. 2024

– **Program Committee**: ACM SIGMETRICS 2027, IEEE EuroS&P 2027, RAID 2026.