Sumanth Rao

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

sumanthvrao.github.io

EDUCATION

2021 – exp. 2027 **Ph.D. Computer Science** **University of California, San Diego**
Advisors: Stefan Savage and Geoffrey M. Voelker · Sysnet & CryptoSec groups
Committee: Aaron Schulman, Christian Dameff, kc claffy + advisors

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

RESEARCH INTERESTS

Empirical security and Internet measurement: email and messaging security, network security, security of critical infrastructure (healthcare, automotive), and AI security.

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 Symposium on Security and Privacy (Oakland) 2026 · CSAW Applied Research Competition Finalist · CVE-2025-46311

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 Symposium 2026 · DEF CON 34 · CVE-2026-18411 · News: Wired * equal contribution

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* · News: Wired, Forbes

Unfiltered: Measuring Cloud-based Email Filtering Bypasses
Sumanth Rao, Enze Liu, Grant Ho, Geoffrey M. Voelker, Stefan Savage.
The ACM Web Conference (WWW) 2024 · News: Dark Reading, ACM TechNews, tl;dr sec

Rooting Out Incorrect RIPE Atlas Probe Geolocations
Katherine Izhikevich, Ben Du, Manda Tran, **Sumanth Rao**, Alisha Ukani, Ray Bellis, Liz Izhikevich.
ACM Internet Measurement Conference (IMC) 2026

IRRegularities in the Internet Routing Registry
Ben Du, Katherine Izhikevich, **Sumanth Rao**, Gautam Akiwate, Cecilia Testart, Alex C. Snoeren, kc claffy.
ACM Internet Measurement Conference (IMC) 2023

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.
Privacy Enhancing Technologies Symposium (PETS) 2023 · FTC PrivacyCon 2024 · News: CACM, Tech Xplore, UCSD News

AWARDS & HONORS

2026 **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
2024 Finalist, NatSec Hackathon (Stanford DEFCON & Shield Capital)
2021 – 2022 JN Tata Endowment Scholar (national scholarship for graduate study abroad)

INVITED TALKS

Oct 2026	Guest Lecture, CSE 227: Graduate Computer Security, UC San Diego
Feb 2025	*Measuring Hospital Ransomware Attacks*, CAIDA AIMS-5 Workshop
Mar 2024	*Panel 6: Mobile Device Security*, FTC PrivacyCon
Nov 2022	*Having a Great GSoC as an Open Source Newbie*, Google Open Source

PROFESSIONAL SERVICE

2027	Program Committee, ACM SIGMETRICS
2027	Program Committee, IEEE European Symposium on Security and Privacy (EuroS&P)
2026	Program Committee, Symposium on Research in Attacks, Intrusions and Defenses (RAID)
2026	CSE Visit Day Coordinator, UC San Diego
2025 – 2027	CSE Chez Bob "Bobfather", UC San Diego
2023 – 2024	Allyship Co-Chair, CSE Graduate Women in Computing, UC San Diego
2021 – 2023	VP External, Jacobs Graduate Student Council, UC San Diego

TEACHING & MENTORING

2022 – 2023	**Teaching Assistant**: Intro to Computer Security (Sp '22, Fa '22, Sp '23); Graduate OS (Wi '23)
2020 – 2024	**Google Summer of Code Mentor**, Zulip Open Source Project: mentored five students

RESEARCH & INDUSTRY 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.

2020 – 2021 **Citrix, Licensing** · *Software Engineer I*

– Cut License Server test resource use by up to 50% with Docker microservices on Citrix Xen.

2019 **Zulip Open Source Project** · *Google Summer of Code Student* Mentors: Tim Abbott, Neil Pilgrim

– Built the Zulip terminal client.

VULNERABILITY DISCLOSURES, PATENTS & MEDIA

– **CVE-2026-18411** · KARR Security System authentication bypass; coordinated via CISA (ICSA-26-216-01).
– **CVE-2025-46311** · iOS message sender-parsing flaw enabling spoofing of arbitrary phone numbers.
– **U.S. Provisional Patent 63/674,158** · "Digital Availability Surveillance Method", assigned to UC San Diego (2024).
– **Media coverage** · Wired, Forbes, Dark Reading, ACM TechNews, CACM News, Tech Xplore, KPBS, CTV News.