

PRADYUMNA SHOME

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Education

Georgia Institute of Technology

Master of Science – MS, Computer Science

Atlanta, GA

August 2022 – December 2024

University of Illinois at Urbana-Champaign

Bachelor of Science – BS, Computer Science

Champaign-Urbana, IL

August 2017 – May 2021

Achievements: Pwnie Award, Best Cryptographic Attack • Intel Hardware Security Academic Award Honorable Mention
• Malwarebytes Cybersecurity Scholarship • KP Engineering Fellowship Finalist • CS Outstanding Course Assistant Award

Security and Privacy Experience

Carnegie Mellon University

Researcher

Pittsburgh, PA

February 2025 – Present

- Research in Usable Privacy-Enhancing Technologies within the CyLab and HCII

Flashbots

Research Intern

Atlanta, GA

May 2024 – August 2024

- Studied side-channel vulnerabilities and mitigations for Ethereum VM instances and PBS auctions on Intel TDX
- Published blog posts on IC3 Summer Camp / Hackathon, Intel TDX security, and page fault side-channel mitigations

Georgia Institute of Technology

Researcher, Human Factors in Security and Privacy

Atlanta, GA

January 2024 – December 2024

- Published poster on a user study of security and privacy concerns with Generative AI Chatbots at SOUPS 2024

Researcher, Hardware Security and Microarchitectural Side-Channel Attacks

August 2022 – December 2023

- Designed GoFetch attack on Diffie-Hellman Key Exchange; performed hardware reverse engineering and pixel stealing

Security and Privacy Research at Illinois

Researcher

Urbana, IL

August 2019 – May 2021

- Surveyed CompArch literature in detail, implemented processor optimizations via gem5, and conceptualized attacks
- Paper: *Opening Pandora's Box: A Systematic Study of New Ways Microarchitecture Can Leak Private Data*

Software Engineering Experience

Meta (formerly Facebook)

Software Engineer · Messenger Growth

San Francisco Bay Area, CA

September 2021 – August 2022

- Created features that help friends start meaningful 1:1 conversations based on content they mutually enjoy, using Hack

Software Engineering Intern · Privacy Control Infrastructure, Privacy and Data Use Org

September 2020 – December 2020

- Developed framework that supports 2 billion daily mutations to profile-level privacy settings

Salesforce

Software Engineering Intern · Records Experience, Platform Cloud

San Francisco, CA

June 2019 – August 2019

- Created recommendation system for automatic test case suggestions; reduced 13 work days per sprint planning session

Virtusa

Software Engineering Intern · Media & Content Division

New York, NY

July 2018 – August 2018

- Created serverless AWS app for semantic, fine-grained video search through time series analysis on video frames

HackIllinois

Software Engineer · Systems Staff

Urbana, IL

April 2018 – February 2019

- Developed Go microservices for user and event management, authorization, and cloud notifications for 2.5K+ users

Technical Skills

- **Programming Languages:** Python, Go, Java, C, C++, Rust, Kotlin, HTML, CSS, JavaScript, Haskell

Last updated: February 3, 2025.