

PRADYUMNA SHOME

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Education

University of Illinois at Urbana-Champaign

Bachelor of Science – BS, Computer Science · Graduated with Honors

Champaign-Urbana, IL

August 2017 – May 2021

Achievements: Malwarebytes Cybersecurity Scholarship • 3 × IL Engineering Achievement Scholarship • Kleiner Perkins Engineering Fellowship Finalist • James Scholar • Forbes Under 30 Scholar • CS Outstanding Course Assistant Award

Experience

Meta (formerly Facebook)

Software Engineer

San Francisco Bay Area, CA

September 2021 – Present

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
- Published top-tier conference paper on microarchitectural side-channel attacks in modern processors at ISCA 2021
- Paper: *Opening Pandora's Box: A Systematic Study of New Ways Microarchitecture Can Leak Private Data*
- Used information flow tracking and program analysis to automate identification of side-channel vulnerabilities

Meta (formerly Facebook)

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

Seattle, WA

September 2020 – December 2020

- Building a structured and decentralized framework to support 2 billion daily mutations to profile privacy settings
- Framework simplifies legal compliance, improves developer experience, and reduces the impact of SEVs
- Orchestrating data migration scripts to transition 86+ settings to new framework, and ensuring feature parity

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
- Developed UI for Einstein Modeling's first Business Card Scanner, that used OCR and NER
- Ideated and built intern-matching social app that helps bolster personal connections and surfaces common interests

Virtusa

Software Engineering Intern, Media & Content Division

New York, NY

July 2018 – August 2018

- Created serverless cloud app for semantic and fine-grained video search through time series analysis on video frames
- Build pipelines using AWS to automate data wrangling for 8+ entity schemas and multiple GBs of data
- Developed business intelligence (BI) tool to analyze and visualize social media reactions to popular media

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
- Implemented user mocking, OAuth single sign-on, decision review, and templated mail to improve hacker experience
- Integrated QR code scanning in Android app to help staff manage event check-in and track participant statistics

Other Experience

- **Leadership:** Director, Web Team, Reflections | Projections Technology Conference
- **Course Assistant:** System Programming x 5 • Intro CS at Stanford + Harvard • Computer Architecture x 1

Technical Skills

- **Programming Languages:** Python, Go, Java, C, C++, Kotlin, HTML, CSS, JavaScript, Haskell
- **Tools + Frameworks:** Cloud (AWS, Firebase, CI/CD, Serverless, Docker); Databases (SQL/NoSQL); Web (React, Node.js, Web Components); Version Control (Git, SVN); ML (PyTorch, Scikit-learn, NumPy); Misc. (Intel VTune)

Last updated: October 30, 2021.