

PRADYUMNA SHOME

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Education

University of Illinois at Urbana-Champaign (UIUC)

B.S. Computer Science, Grainger College of Engineering

Champaign-Urbana, IL

August 2017 - May 2021

Selected Coursework: Security I + II, Distributed Systems, Machine Learning [PhD], VR, Combinatorics, Senior Thesis

Achievements: Malwarebytes Cybersecurity Scholarship • $3 \times$ Illinois Engineering Achievement Scholarship • Kleiner Perkins Engineering Fellowship Finalist • Edmund J. James Scholar • Forbes Under 30 Scholar • CS Outstanding Course Assistant Award (5 out of ~ 600)

Experience

Facebook

Seattle, WA

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

September 2020 - December 2020

- Building a highly structured, loosely coupled, and decentralized framework to support 2 billion daily mutations to profile-level privacy settings, using Ent, an internal entity framework and Hack (PHP)
- Framework simplifies legal compliance, improves developer experience, and reduces the impact of high-severity incidents
- Creating data migration scripts to transition users to the new framework, and ensuring privacy policies have identical behaviors through trace equivalence checking

FPSG, Security and Privacy Research at Illinois

Urbana, IL

Research Assistant — Advisor: Prof. Christopher W. Fletcher

August 2019 - Present

- Hardware security research involving leaky processor optimizations, dynamic information flow tracking (DIFT), and the gem5 processor simulator to develop micro-architectural side-channel attacks

Salesforce

San Francisco, CA

Software Engineering Intern, Records Experience, Platform Cloud

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

New York, NY

Software Engineering Intern, Media & Content Division

July 2018 - August 2018

- Created serverless cloud app and data lake that enabled semantic and fine-grained video search through time series analysis on computer vision data
- Implemented reference business intelligence (BI) tool, using NLP generative models (LDA, NTM) to gain insights on social media reactions to popular films and TV shows

HackIllinois

Urbana, IL

Systems Staff

April 2018 - February 2019

- Developed Go microservices to enable user authentication, authorization, event registration, and notifications via mobile app clients, including CI / CD pipeline, using MongoDB for persistence
- Built features such as user mocking, OAuth single sign-on, multi-tier decision review, templated mail, and created QR code scanner in Android app to manage event check-in and track participant statistics for meals and mini-events

Other Relevant Experience

- **Leadership:** Director, Web Team, Reflections | Projections Technology Conference
- **Teaching:** Lead Course Assistant, Illinois CS 241: System Programming • Section Leader, Stanford CS 106A + Harvard CS 50 • Course Assistant, Illinois CS 233: Computer Architecture

Technical Skills

- **Programming Languages:** Python, Go, Java, C, C++, Kotlin, HTML, CSS, JavaScript
- **Tools + Frameworks:** Cloud (AWS, Firebase, Travis, Serverless, Docker); Databases (MongoDB, MySQL); Web (React, Node.js, Web Components); Version Control (Git, SVN); Machine Learning (PyTorch, Scikit-learn, NumPy); Misc. (Intel VTune)

Last updated: June 12, 2020.