# 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

### Relevant Coursework:

Graduate / Upper Division: Computer Security I, II (CS 461, CS 463), Distributed Systems (CS 425), Machine Learning [PhD] (CS 446), Senior Thesis (CS 499), Virtual Reality (CS 498 VR), Combinatorics (CS 413)

#### Achievements:

Salesforce

Kleiner Perkins Engineering Fellowship Finalist • James Scholar • Forbes Under 30 Scholar • Outstanding Course Assistant Award, Department of Computer Science (~5 out of 600) for work done as Lead Course Assistant, CS 241: System Programming • 3 × Illinois Engineering Achievement Scholarship

# Industry Experience

Facebook

Seattle, WA

Incoming Software Engineering Intern

September 2020 - December 2020 San Francisco, CA

June 2019 - August 2019

Software Engineering Intern, Records Experience, Platform Cloud

- Created recommender 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

## ACADEMIC EXPERIENCE

#### FPSG, Security and Privacy Research at Illinois

Urbana, IL

Research Assistant — Advisor: Prof. Christopher W. Fletcher

August 2019 - Present

- Studying processor optimizations vulnerable to micro-architectural side-channel attacks
- Using dynamic information flow tracking (DIFT) to find Worst Case Execution Time (WCET) of a program, based on branch and value predictor state

#### Blender Lab, NLP Research at Illinois

Urbana, IL

Research Assistant — Advisor: Prof. Heng Ji

August 2019 - December 2019

- Conducting literature survey on event schema induction from multi-{media, lingual} representations using GNNs
- Annotating videos for Yoga Robot to understand more about the problem space; learning more about Attention Models and Transformers

## 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 01, 2020.