

SIMRANDEEP SINGH

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EDUCATION

University of California, San Diego

M.S. Computer Science — 4.0 GPA

Expected June 2021

B.S. Computer Science – Theatre Minor – 3.6 GPA

Dec 2019

EXPERIENCE

Software Engineer Intern | Amazon

June 2020 – Sept 2020

- Reduced oncall workload and errors by scripting onboarding process for hundreds of new customers
- Enabled customers to control service usage via CloudFormation as they would AWS resources like S3 or EC2
- Created API client with Smithy for CloudFormation to communicate with Java backend via API Gateway

Graduate Researcher | UCSD Communications Department, Turkopticon

March 2020 – Present

- Updated Rails app and JS userscript increasing relevancy of user reviews and visualizing earnings on MTurk
- Developed long term strategy to scale the service and empowered new volunteers to make code changes
- Researched digital labor organization, methods of apprenticeship, maintenance of open source software

Software Engineer Intern | Macy's

June 2019 – Sept 2019

- Improved Java Spring backend by adding caching and protobuf capability to endpoints, and fixing defects
- Created a REST service using Cassandra and Spring Boot to replace a legacy relational database

Software Engineer Intern | Mitchell

June 2018 – June 2019

- Created a serverless application on AWS Lambda to chain Jenkins jobs for all builds in the company
- Built website to visualize graph of project dependencies and highlight cycles using Node, Express, Docker
- Developed an application that generated and managed serverless APIs to increase adoption in company
- Used Terraform + Cookiecutter for templates, Amplify + React for the Portal UI, ECS for AWS management

Software Engineer Intern | BenRevo

Nov 2017 – March 2018

- Created React Redux components replicating physical forms and wrote UI tests for complete coverage
- Built a tiered, manageable store with immutable.js and used Redux Saga to create fail safe async processes

Tutor, Teaching Assistant | UCSD CSE Department

Sept 2016 – Present

- Classes: Object Oriented Programming, Design & Analysis of Algorithms, Theory of Computability, Security
- Graded & held office hours explaining concepts (Inheritance, Dynamic Programming, Graph Theory, OS, etc)

SIDE PROJECTS

simsingh.me/alone – TRUST SD Coalition — Exploiting San Diego's Smart City Infrastructure

- Designed projects showing SD's IoT could be exploited, and built one for demonstration to leverage reform
- Created a Python backend to fetch/process live data and website to map individuals walking alone in the city
- Work contributed to IoT being shut off, privacy ordinance approved by council, and a CHI paper written

simpoll.me – Web Based Polling App

- Developed a polling app with weighted options in Meteor using JavaScript, ReactJS, and MongoDB
- Created features to delete polls, add expiration dates, and have movie polls using The Movie Database

GLITCH – Python desktop application for image manipulation to create glitch art with pseudo-random seeds

@PopularOpOnion – Twitter Bot using Twython API generates new tweets based on user or trending hashtag

SPECIALIZED SKILLS

Languages

- Python
- Java
- JavaScript, TypeScript

Technical

- Node
- Rails
- Spring
- AWS, Terraform, CDK
- React, Redux
- Git