

# Samir Rashid

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## Education

### University of California San Diego

San Diego, CA

DOUBLE B.S. MATH AND COMPUTER SCIENCE, CLASSICAL STUDIES MINOR | GPA: 3.98

Expected Graduation: June 2024

- **Relevant Coursework:** OS (*in progress*), Networking (*in progress*), Functional Programming (*in progress*), Deep Learning, Algorithms, Statistical NLP, Data Structures, Theory of Computation, Graph Theory, Statistics, Systems Programming, Differential Equations

## Experience

### Viasat

Carlsbad, CA

SOFTWARE ENGINEERING INTERN

June 2023 - September 2023

- TBD - Will singlehandedly save the company from macroeconomic conditions.

### Computing for Social Good Lab at UCSD

San Diego, CA

STUDENT RESEARCHER

August 2022 - Current

- Researching social media discourse of mental burnout and problem gambling w.r.t. lockdowns.
- Analyzed trends using **LDA topic analysis**, augmented data, and experimenting with team applying natural language processing techniques.
- Explore and apply SOTA machine learning techniques to deal with real world data constraints.

### Twitter

Remote

QUALITY ENGINEERING INTERN

September - December 2021

- Designed fault tolerant integration with testing framework that catalogues automated test results for manual testers.
- Used Java stream processing to aggregate test results in real time, enabling analytics on historical test results.

### Crownpeak

Remote

SOFTWARE ENGINEERING INTERN

June - August 2021

- Improved revenue visibility by analyzing billions of customer records in AWS **Redshift** and presenting findings to CFO.
- Automated CDN cache invalidation of deactivated trackers and worked on Google Ads deployment.
- Reduced support load by writing documentation, simplifying UI, and adding self-serve tooltips to **ASP.NET** webapp.

### Mercury Health

San Diego, CA

FULLSTACK INTERN

April - June 2021

- Leveraged AWS Lambda to write serverless backend implementing **AWS SNS** SMS notifications, reducing hardware downtime **>80%**
- Streamlined Stripe payment user flow and improved user configurable settings.

## Projects

### Triton Unmanned Aerial Systems

Python

PROGRAMMER

Dec 2020 - Current

- Collaborating with team to design, build, and fly an unmanned aerial vehicle (UAV). **Placed 5<sup>th</sup> place internationally.**
- Building a 3D real time dynamic path planning system in Python using RRT\*.
- Created robust testing framework to simulate and visualize generated paths.

### Deep Neural Networks from Scratch

NumPy, PyTorch

- Wrote IBM machine translation; deep neural network (MLP) **from scratch with no libraries** for CIFAR-10.

Sept 2022

- Use **PyTorch** to implement image captioner (LSTM+CNN) on CoCo; Fine tune BERT for Alexa intent classification.

### File Compression Utility

C++

- Implemented optimal prefix encoding file compression and decompression in C++ using Huffman coding.

Apr 2022

### ACM Attendance Visualizer 🗳

React

FULLSTACK DEVELOPER

Sept-Dec 2020

- Developed online dashboard for analyzing the organization's event attendance data, using **D3, Express, React, and PostgreSQL.**
- Defined schema, implemented protected backend data processing routes, and documented APIs using Postman 🗳.

### Community Coworking Server

Docker, Linux, Bash

DEVOPS LEAD

2019 - Current

- Founded and maintain public server for video chat, file storage, messaging, and email.
- Manage networking, automate Linux server's **Docker** services, maintain wiki, resolve Jira tickets, and overhauled backup processes.

### Triton Schedule Scraper 🗳

Python, Tkinter, Selenium WebDriver

- Python script uses WebDriver and automatically scrapes UCSD course schedule to create an iCal file.

Oct 2020

- Created native GUI for the program using Python and Tkinter.

## Awards

Xerox Award for Innovation and Information Technology

2019

## Skills

**Language** Python, Java, C, C++, Rust, JavaScript, TypeScript, Bash,  $\LaTeX$ , MATLAB, R, Google Apps Script

**Software** PyTorch, React, SQL, AWS, Docker, Linux, Unity, Fusion 360, JUnit, Flask, pytest, Jest, ASP.NET, GDB, cProfile, Kubernetes