

## EDUCATION

### University of Southern California

May 2022

B.S. Computer Science - Viterbi School of Engineering

### University of Edinburgh *Semester Study Abroad*

September 2021

**Honors:** Army ROTC Full Scholarship, Pathway Oregon Full Scholarship, Armed Forces Award, Dean's List

## WORK EXPERIENCE

### Microsoft - Software Engineer, *Redmond WA (40 hr/week)*

Aug 2022 – Present

- Created Azure Cosmos data pipeline processing over >20TB of user data daily saving over \$14k per month in processing costs
- Continuing to integrate ML frameworks with GPT for real-time detection of emerging issues within Edge feedback system. This involves prompt engineering, writing unit tests, and setting up alerts using Azure functions
- Lead a team of 16 to create a brain scanning tool that processes brain scans that identifies and visualize nuanced subregions within complex brain structures using machine learning, aiding researchers and clinicians in advanced neuroanatomical studies (Winner of 2022 Microsoft Global Hackathon Industry Executive Challenge)
- Assisting teams across the product by creating histograms and metrics related to performance
- Ongoing work with Edge (based on Google's Chromium) and building/designing API frameworks

### Broad Institute of MIT and Harvard - Researcher, *Boston MA (40 hr/week)*

May 2022 – September 2022

- Laboratory of Dr. Guoping Feng (genomics and neuroscience) while directly reporting to Dheeraj Roy
- Classified spatial scRNA-seq data (MERFISH) to subthalamic nuclei region with machine learning using DAPI/POLYT scans from Allen Brain Institute
- Set up AWS CRUD system using different DB (Dynamo, Microsoft SQL Server) hosted statically on S3 with API creation

### U.S Army – Cadet, *Los Angeles CA (40 hr/week)*

Sept 2017 – May 2022

- Fulfilled all duties in training and coursework as a cadet at University of Southern California
- Field training consists of small-unit tactical operations and land navigation with an emphasis on leadership

### Army Cyber Command - Software Engineer, *West Point NY (40hr /week)*

May 2021 – Aug 2021

- Improving ML/DL networks to classify cyber attacks with Network Intrusion Detection Systems (NIDS) achieving a experimental accuracy of 96%+
- Developed ELK Stack querying log files with Filebeat from Zeek/WireShark to process and monitor in Elastic Security
- Using Tableau, Kibana, and python libraries (Seaborn, Plotly, Matplotlib) to visualize data
- Honor of meeting LTG (R) Hernandez, first commander of the US Cyber branch, and Gen. Petraeus former director of the CIA and presenting my work

### SPADA Mortgages – Technology Project Manager, *Los Angeles (10 hr /week)*

June 2020 – May 2022

- Exploring and creating ways for automation in areas between loan originators and clients for faster loan processing
- Integrated Plaid into Floify to improve loan officers' communication lines for easier access to clients
- Implemented Twilio's API for streamline central communication line (IVR, SMS, AI bots)

### USC Military and Veterans Initiatives – Assistant Program Manager, *Los Angeles (10 hr /week)*

Jan 2020 – May 2022

- Supporting student-veterans in academic success, career development, and project development

### Red Berry Innovations – Cyber Engineer Intern, *Omaha NE (40 hr/week)*

April 2020 – June 2020

- Classified continuous binary sensor data from a CAN bus from a vehicle using convolutional neural networks
- Obtained vehicle information from ambiguous dynamic data to determine vehicle movement and location tracking without GPS

### NASA Jet Propulsion Laboratory – Software Engineering Intern, *Pasadena CA (40 hr/ week)*

June 2019 – August 2019

- Mars Mission Operations Team developing an RTG power improvement model for an increased efficiency of 8-12% of the Curiosity rover and invited to present at the annual 2020 NASA conference
- Used marginal data analysis to view 500+ sols of each activity execution time using elasticsearch, python data tools (pandas, numpy, plotly), and graphs using d3.js

## **VOLUNTEER ACTIVITIES**

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**COVID-19 Vaccination Distribution** - Sanitation Officer, *Corvallis OR*

March 2021 - April 2021

- Overlooking vaccine sites ensuring locations are following prompt guidelines for sanitation

**Google Developer Student Club** – Founder & President, *Los Angeles CA*

May 2019 - April 2020

- Instituted and led USC organization to assist local NGO's and local businesses in local community in Los Angeles

**Global Aid Network (GaiN)** – Volunteer, *Uganda Africa*

April 2018

- Hosted medical eye clinics and assisted poverty alleviation in rural villages near Kampala and Hoima

## **INTERESTS**

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Interests: Humanitarian Aid, Sustainable Energy, AI, surfing, flying