

Apollo Jain

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Education

UC Berkeley

M.S. EECS

May 2018

GPA: 3.9

Coursework: Stochastic Processes, Database Systems, Deep Time Series Learning, Computer Vision

Teaching: Designing Information Devices and Systems II (Circuits, Controls, and Signal Processing)

Thesis: EV Infrastructure Planning and Grid Impact Assessment: A Case for Mexico

UC Berkeley

B.S. EECS

May 2017

GPA: 3.6

Coursework: Signals and Systems, Optimization Models, Engineering Statistics, Algorithms, Artificial Intelligence, Machine Learning, Discrete Math and Probability

Organizations: ASUC Student Government (CTO), Robotics at Berkeley (Co-Founder, Vice President), Hackers at Berkeley (Director), Kairos Society

Awards: Cal Alumni Association Leadership Award, Oski Student Leadership Award, Fung Fellowship for Wellness and Technology

Technical Skills

Languages : Python, Matlab, Java, C++, C, Go

Frameworks: PyTorch, TensorFlow, SciKitLearn, CVXPY, OpenGL

Professional Experience

Anduril Industries

Irvine, CA

Software Engineer

November 2018 – Present

- Serve as lead developer on a new maritime tower product, which includes radar and VHF transceiver serial processing code, general infrastructure, a boat-specific sensor fusion tracking model, and a sigmoid-based hostile boat classifier. Currently used in the field for drug trafficking prevention on the California coast. Written in C++, Golang, and NixOS.
- Built a radar tracking algorithm and software infrastructure for the company's drone tracking tower. Integrated various third-party RF Detection Sensors in order to improve the algorithm's confidence. System recorded >85% tracking accuracy and 95% drone identification rate. Currently deployed internationally in the field. Written in C++, Golang, and NixOS.
- Created an EKF-based general purpose model for fusing high-confidence measurements (ADSB, AIS, GPS) into the system's global tracker. Helped to reduce sensor fusion uncertainty by 60% in counter-drone project, allowing for the ability of the counter-drone kinetic "interception" system to have end-to-end lock on and drone kills in testing. Written in C++.

UC San Francisco

San Francisco, CA

Research Engineer

August 2018 – November 2018

- Created an infrastructure pipeline in order to identify features to compute visual and text based features of MRIs using Python.
- Created a SVM-based classification model to differentiate between MRI DICOM image types and refined a CNN-based model for the same purpose. Recorded accurate classification rate of >90%, while reducing false-positive rate by 30% by fusing aforementioned text-based features. Used Python in conjunction with ScikitLearn and PyTorch frameworks.

Palantir Technologies

New York, NY

Forward Deployed Engineering Intern

May 2017 – August 2017

- Worked on comprehensive spreadsheet, including integration with internal tooling for code management, geographic data feature encoding frameworks, proprietary cloud services and database tools, and more.
- Coded custom software solutions using the Palantir Gotham product for clients in the government regulatory space.
- Won [Palantir Hack Week](#) for an NLP slang and synonym detection project, which also integrated the aforementioned spreadsheet project that I was involved with,

Tesla Motors

Palo Alto, CA

Engineering Intern

January 2016 – May 2016

- Focused on testing and verifying different properties of various parts of the Model 3 Powerboard.
- Created a web application application using Django to keep track of and simulate car part lifetimes, which also served as a Parts Management tool internally.

Projects

Mediate (2019)

Worked in a four person team for YCombinator Hacks in order to build a pair of glasses for recording, searching, and querying conversations. Used an Arduino Feather, Bluetooth Module, Google Cloud Speech, and MongoDB.

Brainwalk (2018)

Worked in a four person team on a neurodegenerative disease diagnostics project in conjunction with the UCSF Bove Lab and the Fung Fellowship. Created infrastructure in Python (Scikitlearn and SciPy) to connect the three portions of the project: Eye tracking data, sound-based signal processing, and gait data.

EV Station Location Generator (2017)

Worked as part of a larger team on a Mexico City environmental improvement simulation. Devised a grid-based placement algorithm in conjunction with a convex optimization approach to place and quantify the locations, earnings, and environmental impact of EV charging stations. Used Python, in conjunction with the CVXPY and ScikitLearn frameworks. Won the [UN Data for Climate Action Award](#) for a publication that included my findings.