Apollo Jain

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Technical Skills

Languages : Python, Matlab, Java, C++, C, Go
Frameworks: PyTorch, TensorFlow, SciKitLearn, CVXPy, OpenGL

Professional Experience

Anduril Industries *Software Engineer*
Irvine, CA 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. 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. Prototyped in Matlab and written in C++.

UC San Francisco *Research Engineer*
San Francisco, CA 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 *Forward Deployed Engineering Intern*
New York, NY 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.
- 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 *Engineering Intern*
Palo Alto, CA January 2016 – May 2016

- Focused on testing and verifying different properties of various parts of the Model 3 Powerboard.
- Created a web 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.

Education

UC Berkeley May 2018
M.S. EECS GPA: 3.9
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 May 2017
B.S. EECS GPA: 3.6
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