

Education

UNIVERSITY OF CALIFORNIA, BERKELEY | 4.0 GPA

2017-PRESENT

Major: B.S. in Electrical Engineering and Computer Science

- UC Berkeley Regents and Chancellors Scholarship Distinction, UC Berkeley Engineering Dean's List – top 10%
- Coursework: Linear Alg, Designing Information Devices and Systems, Data Structures & Algorithms, Discrete Math

STANFORD UNIVERSITY SUMMER | 4.0 GPA

SUMMER 2016

- Coursework: Client-side Internet Technologies, Differential Equations for Engineers

Professional Experience & Research

ARTIFICIAL INTELLIGENCE INTERN | INTEL, OFFICE OF THE CTO

SUMMER 2018

- Created demo projects for Intel OpenVino Model Optimizer with AWS DeepLens device, published associated tutorial.
- Explored gradient based model explanations in image-classification and NLP problems for generalized local linear estimations of differentiable models. Assessed explainability of adversarial example generation via fast gradients.
- Documented internal workflows for AWS EC2, S3, and SageMaker for training and tuning largescale networks.

RESEARCH APPRENTICE | ROMPS GROUP | BERKELEY

SPRING 2018

- Implemented Raspberry Pi based system for collection of humidity/temp/pressure data and SQL data storage.
- Researched then proposed a plan for development of 100m oscillating atmospheric probe to for measuring qualities of low cumulus clouds using modified electric winch, synchronized with payload sensors for altitude measurement.

RESEARCH ASSISTANT | STANFORD UNIVERSITY

SUMMER 2016

- Utilized Python's Natural Language Toolkit to parse and clean 1.3 Terabytes of Corporate 10K and 10Q filings.
- Formed bigram datasets uses to predict corporate donation tendencies based on language usage or keywords
- Created a web-based visualizer using JavaScript, SQL, and Google Charts API to allow researchers to view changes in word usage frequency over time, filtered by industry or location using schema similar to that of Google n-grams.

Personal Experience & Activities

MACHINE LEARNING / AI DEV | LAUNCHPAD AT BERKELEY

SPRING 2018-PRESENT

- Tackled unique object tracking between video frames using YOLOnet model to predict objects future locations. Developed algorithms using nearest neighbor clustering and regression models in addition to function fitting neural networks. Tuned system to robustness across 30 seconds of traffic video. Demo Online.
- Used OpenCV, python 3 to implement facial recognition and tracking in video with Haar Cascade filters.
- Trained emotion recognition neural net using the Yale Faces dataset to categorize facial expression in video.

ANDORID DEV | PROJECT MANAGER | MOBILE DEVELOPERS OF BERKELEY

FALL 2017-PRESENT

- Contract team – developing professional Android voice messaging application for a SkyDeck startup Switchboard.
 - Managed client connection to custom API for user feed/status/notifications and multi-user audio recording and streaming with TokBox video chat REST Api. Integrated with pre-existing iOS and Web App.
 - Routed user events using SocketIO connection. Implemented socket guaranteed delivery with ack messages.
- Developed Streamline – a social mobile application for sharing music using the Spotify API. Interfaced with Spotify streaming API, token authentication, and managed Firebase NoSQL database. App on Google Play Store.

CAPTAIN | FIRST ROBOTICS TEAM 114

2015-2017

- Lead team of over thirty students through the build process of two full sized \$10k competition robots.
- Designed more than two-hundred solid-works components and fabricated on mill, lathe, and 3D printers
- 1st place at the 2017 Ventura Robotics competition, competitor at the 2017 First Robotics Championship

CAPTAIN, VICE PRESIDENT | MVLA SPEECH AND DEBATE

2015-2017

- Ranked 42nd in CA, competitor at nationwide 2016 UK Tournament of Champions, 1st speaker awards UOP, La Costa
- Head of middle school outreach, taught and designed curriculum for debate classes across two school districts.

Skills & Distinctions

PROGRAMMING: Java, Python, Keras, TensorFlow, HTML/CSS, Android, AWS, SQL, Firebase, Language Processing, Unix

ENGINEERING: SolidWorks CAD, mill lathe 3D printer & laser fabrication, MATLAB, diff eq, multivar calc, stats, physics

AWARDS: 2017 Rambus Innovator of the Future Scholarship, see debate and robotics sections.