Arjun Mehta
arjunmmehta.com

EDUCATION & SKILLS

University of California, Berkeley, Class of 2017*: B.S. Electrical Engineering and Computer Sciences* | GPA: 3.5
Courses: DB, Embedded Sys, OS, AI, Software Eng, Networks, Data Structures, Algorithms, Circuits, Signals, Machine Structures
Skills: Python, Java, C, Javascript, Rails, C++, Git | Django, Rails, AngularJS, ReactJS, JQuery, Android | Back End, Front End, UI/UX

EXPERIENCE

Kloudless (API Integration company) **August 2016 – December 2016**
Software Engineering Intern, Berkeley, CA
- Integration of new File Storage services such as Dropbox, Box, Google Drive into Kloudless API, specifically for raw data & pass through features for arbitrary requests, & file hierarchy management. Used Celery to improve concurrency on requests.
- Developing several endpoints using Django Rest Framework to provide a more integrated and robust API, while allowing for scoping and OAuth security to be maintained across accounts, as well as providing specialized admin functionality.

Sighten (SaaS company for solar financiers & installers) **June – August 2016**
Software Engineering Intern, San Francisco, CA
- Integrated facilities to enable several leading solar installers on the platform by building 20+ incentive, credit & loan solvers on the backend with pandas and numpy, along with several metrics for calculating household solar statistics.
- Built an interactive admin portal with Django & Django Admin that helped ops team reduce onboarding time for new from 6 weeks to 2 days. The portal also served many internal API endpoints that became valuable debugging & testing tools for devs.
- Created several widgets to the improve customer feedback system on frontend using AngularJS, and integrated the system with Freshdesk, a customer support software. This helped in logging feedback more efficiently and with less error.

Berkeley Institute of Data Science **January – May 2016**
Web Developer, Berkeley, CA
- Developed an interactive front end web interface with React JS for Text Thresher, a crowd worker based platform that allows documents to be hand labeled & classified by preference, for a research project led by Research Fellow Nicholas Adams
- Built facilities for custom questions and answers on the platform, and improved state management by integrating Redux with the front end. Interfaced with a Django backend to allow for JSON data exchange & implemented pipelines to streamline this.

ideaForge (drone manufacturer for military use) **June – August 2015**
Software Engineering Intern, Navi Mumbai, India
- Developed an efficient video compression algorithm to compress the surveillance video data from the drone's camera using C#, which allowed for small video files to be efficiently compressed. Tests runs worked with video files up to 50MB.
- Subsequently used this compression algorithm with OpenCV & EmguCV to build a buffering model for live frame capture & encoding over C++/CLI interface. Implemented this encoding (to H.264) via hardware using Intel Quick Sync Hardware Encoder lib. The hardware encoding enabled about 5 minutes of live stream to be efficiently compressed & encoded.

PROJECTS AND LEADERSHIP

Gesture Controlled Quadcopter (https://www.youtube.com/watch?v=9tlubUa04NE **)** **October – December 2016**
- Created a gesture detection algorithm via a leap motion to accurately determine hand positions to simulate quadcopter flight.
- Implemented multithreaded feedback control algorithm with safety critical maneuvers using gyroscope & accelerometer data
- Successfully overrode RC channels with appropriate PWM signals to allow hand gestures to control the quadcopter flight.

Technical Lead, Inventory Management, Berkeley Student Food Collective **January 2016-present**
- Developing an inventory and retail management system that supports more flexible revenue, sales & cost calculations that were previously untrackable. Built via Django web app with Postgres DB to serve as a backend service for the collective.
- Implementing predictive learning to use past purchase patterns to improve food purchase, via Clover API & Google Analytics.

Cal Dining Webapp (https://caldining-169.herokuapp.com/)**, CS 169** **January – May 2016**
- Team of 6; built a Ruby on Rails app that improves Cal Dining's current menu & features. Worked on Backend: used several gems & APIs like Nokogiri, Sidekiq & Filepicker to parse scraped data, run cron jobs daily & allow photo uploads by students.
- BDD and TDD via Cucumber & Rspec, for unit & integration tests worked, provided > 90% coverage. Integrated Travis CI.
- Maintained tasks, user stories, tickets via PivotalTracker and organized scrums, & meetings with customer, which led to efficient and productive task management and meetings. Also conducted entry and exit interviews, and user research.

Technical Lead, Smart Pen (device that digitizes the strokes of a pen/any pointing device) **June – December 2015**
- Led a team of 6 with Hardware Bluetooth development, using Blueduino. Wrote Arduino libraries for data transfer from an ADNS 9800 optical mouse sensor and assisted with PCB design. Able to reduce data exchange delays by almost ½.