Arjun Mehta

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EDUCATION & SKILLS

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

EXPERIENCE

Mod9 Technologies, Front End Web Developer, Oakland, CA **February 2017 – present**

Kloudless (API Integration company) **August 2016 – December 2016**
Software Engineering Intern, Berkeley, CA

- Implemented service-independent API features, specifically for raw data & pass-through of arbitrary requests, for File Storage services such as Dropbox, Box, Google Drive into Kloudless API. Used celery to improve concurrency on requests.
- Developing several service 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.

Sighten (SaaS company for solar installers) **June – August 2016**
Software Engineering Intern, San Francisco, CA

- Built 20+ incentive, credit & loan solvers on the backend, which helped integrate several leading solar installers into Sighten.
- Created analytics tools and metrics with pandas and numpy for calculating and forecasting household energy statistics.
- Designed 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 internal API endpoints that were valuable debugging & testing tools for devs.

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 BIDS 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 JSON data exchange & implemented pipelines for streamlining.

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 motions to simulate quadcopter flight.
- Implemented multithreaded feedback control algorithm with safety critical maneuvers with 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/) **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 & TDD via Cucumber, Rspec, Selenium, for unit & integration tests. Provided > 90% coverage. Integrated Travis CI.
- Maintained tasks, user stories, tickets via PivotalTracker. Organized scrums and bi-weekly meetings with our customer.

Co-Founder and Technical Lead, Smart Pen (http://www.arjunmmehta.com/project/pen) **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.
- Led Android App development: implemented low energy Bluetooth, data transfer and parsing, and displaying data on Bitmap. Further assisted to optimize to support OpenGL graphics that helped in smooth vector graphics and reduce lag.