# 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**

## Trifacta, Software Engineer, San Francisco, CA

July 2017 - present

#### **Kloudless** (API Integration company)

August 2016 - December 2016

#### Software Engineering Intern, Berkeley, CA

- Implemented <u>service-independent</u> API features, specifically for raw data & pass-through of <u>arbitrary requests</u>, for File Storage services such as Dropbox, Box, Google Drive into Kloudless API. Used <u>celery</u> to improve <u>concurrency</u> on requests.
- Developing several <u>service endpoints</u> using <u>Django Rest Framework</u> 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+ <u>incentive</u>, <u>credit & loan solvers</u> on the backend, which helped integrate several leading solar installers into Sighten.
- Created <u>analytics tools</u> and <u>metrics</u> with <u>pandas</u> and <u>numpy</u> for calculating and forecasting household energy statistics.
- Designed an <u>interactive admin portal</u> with <u>Django</u> & <u>Django Admin</u> 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 Web Developer, Berkeley, CA

January - May 2016

- Developed an <u>interactive front end web interface</u> with <u>React JS</u> 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 <u>Redux</u> 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 <u>efficient video compression algorithm</u> to compress the surveillance video data from the drone's camera using <u>C#</u>, 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 <u>OpenCV</u> & <u>EmguCV</u> to build a <u>buffering model</u> for <u>live frame capture & encoding</u> over <u>C++/CLI</u> interface. Implemented this encoding (to H.264) via hardware using <u>Intel Quick Sync Hardware Encoder</u> 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 <u>gesture detection algorithm</u> via a <u>leap motion</u> 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 <u>inventory and retail management system</u> 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** (<a href="https://caldining-169.herokuapp.com/">https://caldining-169.herokuapp.com/</a>)

January - May 2016

- Team of 6; built a <u>Ruby on Rails</u> 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 (<a href="http://www.arjunmmehta.com/project/pen">http://www.arjunmmehta.com/project/pen</a>) June – December 2015

- Led a team of 6 with Hardware Bluetooth development, using <u>Blueduino</u>. Wrote <u>Arduino</u> 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