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Jeff Zheng

Experience

Software Engineering Intern - NASA/JPL
June 2015 - August 2015

- Member of the Orbiting Carbon Observatory - 2's Science Data Operations Systems team.
- Developed and deployed a realtime data visualization and search platform using Elasticsearch, Logstash, and Kibana (ELK) which processed software logs produced from OCO-2's telemetry data pipeline.
- Published an exhaustive user manual of the ELK project in NASA's document archive to assist engineers in expanding the platform to other agency projects.
- Created automation tools with Python to scrape product download statistics and visualize the data with D3.

CS170 Reader - UC Berkeley
August 2015 - Present

- Graded problem sets and held office hours for UC Berkeley's upper division course on computer science theory and algorithms.

Undergraduate Researcher - UC Berkeley
September 2014 - May 2015

- Member of the Bribecaster research group sponsored by the Computer Science & Public Policy Department.
- Coordinated research project with Professor Jennifer Bussell of Berkeley's Public Policy Department to create a dashboard interface that tracked government corruption in India.

CS61BL Lab Assistant - UC Berkeley
June 2014 - August 2014

- Provided course instruction, assisted students, and graded assignments during labs in UC Berkeley's data structures class.
- Created web application (http://beautifulsearchtrees.herokuapp.com) to help students learn the insertion, deletion, and search methods of popular tree data structures through animation done in D3.

Cofounder - California Records
May 2013 - March 2015

- Founded an independent record label with two other Berkeley students and managed bookings and production sessions.
- Established Youtube channel (https://www.youtube.com/c/CaliforniaRecords) with over 250,000 views and 1,700 subscribers.

Education

B.A. in Computer Science & Statistics - University of California, Berkeley (Class of 2017)

Relevant Coursework: CS164 (Compilers & Programming Languages), CS188 (Artificial Intelligence), CS170 (Algorithms), CS162 (Operating Systems), CS189 (Machine Learning), CS186 (Databases), CS194-28 (Computational Design & Fabrication)

Skills

Proficient in: Python, Django, HTML, CSS, Javascript, jQuery, Java, Android

Experience in: C, C#, SQL, Elasticsearch, Logstash

Projects

SeedIt (http://getseedit.com)

- Led the development of the Seedit Android gardening application for the Citris Mobile App Challenge.
- Developed backend models for the app's plant database with Parse and designed the app's UI using Material Design patterns.
- Build recommendation and notification system based on location, time, and weather to optimize harvests with the Forecast API.

Bribecaster (http://github.com/jeffzheng1/Bribecaster)

- Created backend models for storing Indian citizen data and a dashboard interface with various data visualization packages.
- Programmed a communications network using Twilio to send robocalls and SMS messages to collect citizen personal information.

Festiv (http://festiv.me)

- Developed web application with Django that uses SoundCloud's API to deliver curated playlists to users by learning their music preferences.

Algovision & the 164 Language (http://github.com/jeffzheng1/algovision)

- Built web application using Node.js to visualize the call stack of algorithms written in 164, an object oriented programming language my team created throughout the Fall 2014 semester at UC Berkeley.
- Used the Wolfram API to analyze the approximate runtime of a function from the structure of the call stack and plot the runtime function on a graph using D3.