

Brian Zhang

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Skills

Programming Languages

Java Strong

Python Intermediate HTML/CSS Javascript

Assembly Netlogo Scheme Familiar

Technologies Used

Flask, jQuery, Firebase, Unix/ Linux, Unreal Engine 4, AngularJS, MongoDB, Android, flex, bison, regex, Retrofit, CLM

Current Coursework

Compilers Development

Past Coursework

Linear Algebra/Multi/Diff Eq.
Professional C++
Intro to Games Programming
Computer Architecture
Game Engines
Building a Tech Startup
Artificial Intelligence
Software Engineering
Operating Systems

Education

University of Southern CaliforniaComputer Science, B.S., *May 2017* graduation

Stuyvesant High SchoolRegents Honors Diploma

Experience

USC Aerial Robotics | Software Engineer

Software engineer on the USC Aerial Robotics (AR) Computer Vision Team. Using *OpenCV* to detect moving roombas and shepherd them over a finish line for the International AR Competition.

Expedia, Inc. | Software Engineering Intern

Hotwire Transport team. Developed a new, core transport stack for the *Android*. App using *Betrofit* and the Expedia API. Completed requirements for a 10 week project in 3 weeks and I designed my own deliverables thereafter.

USC Robotics Research Lab | Research Assistant Built and optimized code with *Kinect* and the *CLM*-framework to develop a computer vision system that tracks detailed sensory information to enable research.

Fashion & People | Software Engineering Intern Full-stack developer. Built various new web pages in *HTML*, *CSS*, and *Javascript/AngularJS* using agile development methods.

MixSpot | Software Engineering Intern

Performed full-stack development using HTML, Javascript, and

Python on Flask to create a mobile-optimized news website.

Octopart | Software Engineering Intern Contracted, part time job developing rules for a <u>regex</u> engine in <u>Python</u> to classify large quantities of electronic parts.

Projects

Cause Bar | Software Jan '16 – May '16

Los Angeles, CA

New York, NY

Los Angeles

San Francisco

Los Angeles

Los Angeles

New York

New York

Jun '16 - Aug '16

Mar '16 - May '16

Jan '16 - Feb '16

Jul '15 - Aua '15

Sep '14 - Oct '14

Jan '16 - May '16

Oct '14

Feb '14

Jun '13

Fall '14 - Spring '17

Fall '09 – Spring '13

Sep '16 - Current

Sentiment analyzer for charities, so donors can make better informed decisions about donating to charities. Built on *Eirebase*, *D3*, *Square*, and *IBM Bluemix*.

Borrow Tomorrow | Software
Online peer-to-peer borrowing/lending service using *Ruby on Rails*,

aimed at enabling the mostly untouched shared-items economy.

Jauntlet | Software Nov '15 – Dec '15

Jousting game built using C++11 and the <u>Unreal Engine</u>. I focused on character movement, and general game logic, but still moved between all aspects of the project including getting character meshes and setting up the gameplay map.

Myo: Fighter of the Streets | Hardware + Software

Calhacks 2014. Created a control system for Street Fighter II using <u>Myo</u> armband from Thalmic Labs. Game performs actions based on motion and gesture inputs.

Facial Recognition Sentry Gun | Hardware + Software Modded a standard automatic nerf gun at HackCooper 2014. Uses *OpenCV*

Modded a standard automatic nerf gun at HackCooper 2014. Uses <u>OpenCV</u> and an <u>Arduino</u>-controlled stepper motor for detecting faces and aligning the gun's camera.

Web Explorer | Software High school software development class group final project. Created a physics engine

High school software development class group final project. Created a physics engine using *Javascript* & *jQuery* to transform any webpage into a 2D platforming game.

Presented at Google NYC in June 2013. Presented at NYTM in July 2013.