Brian Zhang

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Skills

Programming Languages

Java	Strong
C/C++	
Python	Intermediate
HTML/CSS	
Javascript	
Assembly	Fairly Used
Netlogo	
Scheme	

Technologies Used

Flask, jQuery, Firebase, Unix/ Linux, Unreal Engine 4/5, AngularJS, MongoDB, Android, flex, bison

Knowledge of data structures and search/sort algorithms, regular expressions**;** Intermediate understanding of higher-level and theoretical CS (machine learning, genetic algorithms, computer vision)

Academic

Knowledge of classical mechanics & applications through engineering (Robotics, bridge rectifiers, pulse-width modulation)

Current Coursework

Software Engineering
Operating Systems

Past Coursework

Intro to EE
Intro to Programming
Data Structures/Algorithms
Discrete Math
Linear Algebra/Multi/Diff Eq.
Intro to Java/Networks/ Threads
Professional C++
Intro to Games Programming
Algorithms
Computer Architecture
Game Engines
Building a Tech Startup
Artificial Intelligence

Education

University of Southern California — Los Angeles, CA
Computer Science, expected May 2017 graduation — 2014–Current

Stony Brook University — Stony Brook, NY
Electrical Engineering — 2013 – 2014

Stuyvesant High School — New York, NY
Regents Honors Diploma — 2009 – 2013

Projects

Borrow Tomorrow (WIP) | Software — January 2016 – May 2016
Built an online peer-to-peer borrowing/lending service, aimed at enabling the mostly untouched shared-items economy.

Jauntlet | Software — November 2015 – December 2015
Built a game from scratch using C++11 and the Unreal Engine. 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.

Portal Immersion | Hardware + Software — November 2014
Used Kinect, Oculus Rift, and Myo to create a hyper-realistic virtual gaming experience. I primarily worked on the Kinect for movement and gesture control.

Myo: Fighter of the Streets | Hardware + Software — October 2014
Calhacks 2014. Created a control system for Street Fighter II using Myo armband from Thalmic Labs in a team of 3. Game performs actions based on motion and gesture inputs from the Myo. Uses the Myo API (C++) and Objective-C.

Loudspkr | Software — April 2014
Created at HackNY 2014 in 24 hours in a team of 4. Allows the user to join a regional chatroom based on nearest foursquare venue. Technologies used: Foursquare API, Python, Flask, HTML, jQuery, Javascript, Firebase.

Facial Recognition Sentry Gun | Hardware + Software — February 2014
Modded a standard automatic nerf gun with 3 other students at HackCooper 2014. Uses OpenCV and an arduino-controlled stepper motor for detecting faces and aligning the gun's camera.

Web Explorer | Software — June 2013
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 HQ in NYC in June 2013. Presented at NYTM in July 2013.

Experience

Expedia, Inc. | Software Engineering Intern — San Francisco
Hotwire Transport team. Worked on building a new, core transport stack for the Android Application. — June 2016 – August 2016

USC Robotics Research Lab | Research Assistant — Los Angeles
Built and optimized code with Kinect and the CLM-framework to develop a system that tracks detailed sensory information to enable research. — March 2016 – May 2016

Fashion & People | Software Engineering Intern — Los Angeles
Full-stack developer. Working on building various new pages for the website using agile development methods. — January 2016 – February 2016

MixSpot | Software Engineering Intern — New York
Performed full-stack development to create a mobile-optimized news website. — July 2015 – August 2015

Octopart | Software Engineering Intern — New York
Contracted, part time job developing rules for a regex engine to classify large quantities of electronic parts. — September 2014 – October 2014