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

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)

Past Coursework
Intro to EE
Intro to Programming
Data Structures/Algorithms
Discrete Math
Linear Algebra/Multi/Diff Eq.

Current Coursework:
Intro to Java/Networks/Threads
Professional C++
Intro to Games Programming
Discrete Math II
Computer Architecture

Education

University of Southern California — Los Angeles, CA
Computer Science — 2014–Current

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

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

Projects

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 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

MixSpot | Software Developer — New York
July 2015 – August 2015
Performed full-stack development to create a mobile-optimized news website (for MixSpot) from scratch.

Viterbi Mobile Web Developer | Programmer — University of Southern California
September 2014 – December 2014
Headed (solo) mini-projects on various components of the Viterbi website, from integrating Instagram/Twitter/RSS feeds to optimizing the mobile website.

MIT Zero Robotics | Programmer — Stuyvesant High School
September 2011 – December 2011
Wrote simulation software the the MIT "Spheres" that were ultimately simulated on the International Space Station.

Math Team | Competitor — Stuyvesant High School
September 2009 – June 2013
Participated in various math competitions/contests. (AMC, AIME, Mandelbrot, NYCIML, NYSML, etc).

FIRST Robotics | Engineer — Stuyvesant High School
October 2009 – June 2013
Built robots from scratch for the FTC Robotics team (both programming/constructing the robot) to compete in the FIRST Robotics Challenge. The overall team competed nationally for all 4 years from 2009-2013.

Stony Brook Computing Society | Member — Stony Brook University
October 2013 – May 2014

Math Club | Member — Stony Brook University
August 2013 – May 2014