

Brian Zhang

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Skills

Programming Languages

Java Strong C/C++

Python Intermediate HTML/CSS Javascript

Assembly Netlogo Scheme Fairly Used

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:

Game Engines
Building a Tech Startup
Artificial Intelligence
(Surveying) 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

Education

University of Southern CaliforniaLos Angeles, CAComputer Science, expected May 2017 graduation2014–CurrentStony Brook UniversityStony Brook, NYElectrical Engineering2013 – 2014Stuyvesant High SchoolNew York, NYRegents Honors Diploma2009 – 2013

Projects

Jauntlet | Software November 2015

Built a game from scratch using C++11 and the Unreal Engine. I worked primarily on character movement, and general game logic, but still moved between all aspects of the project including getting character meshes and setting up the 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 Calhacks 2014. Created a control system for Street Fighter II using Myo armband

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

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

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

Fashion & People | Software Developer

Full-stack developer. Working on building various new pages for the website using agile development methods.

MixSpot | Software Developer

Performed full-stack development to create a mobile-optimized news website from scratch.

Viterbi Mobile Web Developer | Programmer

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

Wrote simulation software the the MIT "Spheres" that were ltimately simulated on the International Space Station.

Math Team | Competitor

Participated in various math competitions/contests. (AMC, AIME, Mandelbrot, NYCIML, NYSML, etc).

FIRST Robotics | Engineer

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

Los Angeles

October 2014

April 2014

June 2013

January 2016 - Current

New York

July 2015 – August 2015

oury 2010 / ragast 2010

University of Southern California

September 2014 – December 2014

Stuyvesant High School September 2011 – December 2011

September 2011 – December 2011

Stuyvesant High School

September 2009 – June 2013

Stuyvesant High School October 2009 – June 2013

Stony Brook University October 2013 – May 2014