



# 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

Game Engines  
Building a Tech Startup  
Artificial Intelligence

### 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 California

Computer Science, expected May 2017 graduation

### Stony Brook University

Electrical Engineering

### Stuyvesant High School

Regents Honors Diploma

Los Angeles, CA

2014–Current

Stony Brook, NY

2013 – 2014

New York, NY

2009 – 2013

## Projects

### Jauntlet | Software

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.

November 2015

### Portal Immersion | Hardware + Software

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.

November 2014

### Myo: Fighter of the Streets | Hardware + Software

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.

October 2014

### 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.

April 2014

### Facial Recognition Sentry Gun | Hardware + Software

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.

February 2014

### 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.

June 2013

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.

Los Angeles

January 2016 – Current

### MixSpot | Software Developer

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

New York

July 2015 – August 2015

### 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.

University of Southern California

September 2014 – December 2014

### MIT Zero Robotics | Programmer

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

Stuyvesant High School

September 2011 – December 2011

### Math Team | Competitor

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

Stuyvesant High School

September 2009 – June 2013

### 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.

Stuyvesant High School

October 2009 – June 2013

### Stony Brook Computing Society | Member

Stony Brook University

October 2013 – May 2014