Brandon Li

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Education

Fairview High School *May 2020*
    High School Diploma GPA: 4.575 weighted

Skills

- ♦ **Technical Languages**   Javascript • Python • Java • Ruby
       Swift • Bash • HTML • CSS
- ♦ **Libraries/Frameworks**   Ruby on Rails • React • JQuery
       Angular • TKinter • Pygame
- ♦ **Technologies**   Git • Heroku • Grunt • NodeJS • LaTeX
- ♦ **Spoken Languages**   English • Spanish • Chinese
- ♦ **Activities**   Fairview Web Team
       Fairview Swim & Dive Team

Coursework

- ♦ **AP/IB Computer Science A & HL**
- ♦ **AP Calculus AB, & BC**
- ♦ **Calculus 2 & 3 Honors**
- ♦ **AP Calculus based Physics 1 & 2**
- ♦ **AP Chemistry 1 & 2**
- ♦ **AP Language and Composition**
- ♦ **AP Literature**
- ♦ **AP U.S. History**

Industry Experience

PhET • Development Team | *Software Engineering Intern*   *May 2019 - Present*

- ♦ Worked on the implementation and improvement of the interactive math simulation titled 'Vector Addition.' Converted simulation from Java flash player app to HTML5 to achieve higher accessibility.
- ♦ Remodeled and added features to serve as a visual aid of vector addition and subtraction for students, including the addition of a draggable origin, vector equations, vector components, and more.
- ♦ Includes 4 screens and 13,000+ lines of code. Optimized for browsers and touch screen devices.
- ♦ Collaborated with a diverse team of engineers, product managers, and designers to build the simulation.

Selected Projects

Learning App   *December 2018 - March 2019*

- ♦ Web application featuring helpful learning tools: a heap-based planner, a stack-based calculator, and Javascript interactive simulations.
- ♦ Exhibited 'Collision Theory,' an interactive simulation that practices the concepts of momentum and the coefficient of restitution that features two cars colliding with the user options to change mass, velocity, and restitution of the cars respectively.

Q.O.Z. Web App   *December 2018*

- ♦ Implemented a "qualified opportunity zone" checker based on the web. Allows realtors to conveniently list if a property is within a "qualified opportunity zone" and serves as a convenience tool to investors.

Stack   *August 2018 - September 2018*

- ♦ Developed a **3**D block stacking game using **2**D Python Pygame graphics library.
- ♦ Features a randomly generated block gradient effect on a pixel by pixel level.

Tetris   *June 2018 - August 2018*

- ♦ Designed and implemented a multiplayer Tetris game using pygame and Tkinter graphics libraries.
- ♦ Features multiple modes including multiplayer 1v1 Tetris on the same keyboard.
- ♦ Utilized SRS (Super Rotation System) rotation algorithm with T-Spins and Wall Kicks.

Tic-Tac-Toe   *March 2018*

- ♦ Tic-Tac-Toe game using Python Tkinter library, with decision tree AI and event-based animations.

Leadership

Fairview Web Team   *August 2018 - present*

- ♦ Leader of school Web Team, a student-run organization that maintains and update the Fairview High School website in Ruby On Rails, which has **300,000**+ lines of code. (www.fairviewhs.org)
- ♦ 10,000+ weekly page views from parents, students, and staff.

Fairview Swim & Dive Team   *August 2017 - present*

- ♦ Captain of Fairview's Swim & Dive team. Organized gatherings, fundraisers, and social events for a team of 50+ swimmers. Helped to run daily practices and weekly competitive meet events.