

# BRIAN LAI

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## EDUCATION

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### San Francisco State University

August 2016 – May 2020

Bachelor of Science in Computer Science

3.53 GPA

### Relevant Coursework

Data Structures, Discrete Mathematics, Machine Structures, Web Software Development, Programming Methodology, Operating Systems, Analysis of Algorithms, Programming Languages, Software Engineering, HCI, Multiplayer Game Development, UNIX Embedded Systems, Linear Algebra

## SELECTED PROJECTS

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### Infection FPS Game

May 2020

- Worked in a team of 8 to create a multiplayer first-person shooter game in Unity C#.
- Implemented multiplayer lobby and gameplay functionality using Mirror High-Level Networking API.

### Self-Driving Car Robot

May 2020

- Worked in a team of 4 to build an autonomous self-driving robot car with Raspberry Pi.
- Built multithreaded functionality to power and drive the robot in C using various sensors and interfaces.

### Mecha Fighter VR Game

December 2019

- Worked in a team of 5 to create a multiplayer VR fighting game in Unity C# using the SteamVR SDK.
- Built controller motion gesture detection system to trigger game events and send over the network.
- Implemented networking using custom server written in Java.

### BaySpace Image Posting Web App

August 2019

- Worked in a team of 8 as the GitHub manager to build a full-stack web CRUD application.
- Built the server using NodeJS, ExpressJS, Amazon Web Services, and MySQL.
- Built account registration system with password encryption and authentication for uploading images.
- Built admin page with basic CRUD capabilities to modify database entries submitted by users.

### Bomberman Java Game

May 2019

- Built a 4-player game in Java 11 using the Swing GUI toolkit and utilizing OOP principles.
- Developed fast collision detection system that runs every frame using the Visitor design pattern.
- Developed an algorithm to calculate 4-direction bomb explosions based on nearby collisions.

## SKILLS

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### Coding Languages

C#, Java, Unity, Godot, C++, Python, HTML, CSS, JavaScript, NodeJS, ExpressJS, Angular, React, ASP.NET Core, Razor Pages, Blazor, MySQL, MongoDB, Springboot, Swift

### Technologies

Amazon Web Services, Maven, Gradle, Docker, Raspberry Pi

### Spoken Languages

English, Vietnamese, Japanese