

BRIAN LAI

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EDUCATION

San Francisco State University – San Francisco, CA

August 2016 – May 2020

Bachelor of Science in Computer Science

- **Coursework:** Data Structures, Discrete Mathematics, Machine Structures, Web Development, Programming Methodology, Operating System Principles, Analysis of Algorithms, Programming Languages and Paradigms, Software Engineering, Human-Computer Interaction (HCI), Multiplayer Game Development, UNIX Embedded Systems, Linear Algebra, Probability and Statistics
- **GPA:** 3.53

EXPERIENCE

Software Engineer – Robert Half

September 2021 - Present

- Object-oriented programming with Java and Apex, front-end web development with JavaScript, HTML, CSS, Lightning Web Components, and databases with SQL/SOQL. Other technologies include AWS and AngularJS.

FEATURED PROJECTS

.NET Discord Bot

February 2021

- Developed a Discord bot in C# with .NET using the Discord.Net library and Dependency Injection.
- Built REST API backend with ASP.NET to communicate with MySQL database using Entity Framework Core, and MediatR.
- Tested, built, and deployed application in Docker containers with bridged network between containers.
- Configured database migrations using versioned .sql files with Flyway to keep database schema up to date and synchronized.

Text Morph

April 2021

- Created client-side web application to transform user text input with Angular, TypeScript, and Tailwind CSS.
- Built and deployed application to the public served statically on GitHub pages.
- Added Progressive Web App support to enable offline installation on mobile and desktop.

Infection FPS Game

May 2020

- Worked in a team of 8 to create a multiplayer first-person shooter game in Unity C#.
- Built weapon system featuring 3D animations and custom graphics shaders.
- Implemented online server-client architecture network communication using Mirror Networking.
- Wrote and edited 26-page game design document to serve as a living blueprint for the development cycle of the game.

Self-Driving Car Robot

May 2020

- Worked in a team of 4 to build an autonomous self-driving robot car powered by the Raspberry Pi and interfacing with its GPIO pins.
- Built multithreaded functionality to power and drive the robot in C using various sensors, motors, and interfaces.

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-side backend REST API using NodeJS, ExpressJS, and MySQL database and deployed on AWS EC2 Linux VM instance.
- Built account registration system with password encryption and authentication for uploading images.
- Built admin page with basic CRUD capabilities to modify image postings submitted by users.
- Wrote and edited project documentation that lists requirements, milestones, and functionality for the application.

Bombberman and Tanks Java Games

May 2019

- Designed two structured interactive games using Java 11 Swing GUI toolkit for two or more players.
- Developed fast collision detection physics using the Visitor design pattern.
- Developed unique algorithms to calculate 4-direction bomb explosions based on nearby collisions.

SKILLS

Coding Languages

C#, Java, TypeScript, JavaScript, Python, C++, SQL, HTML, CSS

Technologies

.NET, ASP.NET Core, MySQL, Angular, React, NextJS, NodeJS, Blazor, Selenium

Tools

Linux, Unity, Tailwind CSS, Bootstrap, Amazon Web Services, Google Cloud Platform, Docker

Spoken Languages

English, Vietnamese, Japanese