# BRIAN H. LAI

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### **EDUCATION**

### San Francisco State University - 3.54 GPA

August 2016 - May 2020

Bachelor of Science in Computer Science

- Data Structures, Discrete Mathematical Structures, Machine Structures, Programming Methodology, Software Development, Operating System Principles, Analysis of Algorithms, Software Engineering, Human-Computer Interaction
- Calculus I & II, Probability and Statistics with Computing, Linear Algebra
- General Physics with Calculus I & II
- Worked in Software Engineering team of 8 as the role of GitHub master
- Exercised Software Engineering development process (iterative deployment, SCRUM meeting, testing)

## **SKILLS, TOOLS, TECHNOLOGIES**

- Java, C#, C++, C, NodeJS, ReactJS, AngularJS, Python, CSS, HTML, JavaScript, TypeScript, PHP, Ruby
- Unity, IntelliJ IDEA, Rider, CLion, WebStorm, RubyMine, Visual Studio, NetBeans, Git, Bash, UNIX
- Amazon Web Services, Google Cloud, Selenium, Node Package Manager, MySQL, MongoDB, Trello
- ProCreate, Traditional Art (drawing), Adobe Photoshop, Adobe Illustrator, Affinity Photo, Sketch, Figma
- English, Vietnamese, Japanese
- Time management, fast learner, organized, team member, problem solver, attention to detail

### **SELECTED PROJECTS**

BaySpace August 2019

Worked on front-end, back-end, and Git management for a team of 8. The web app is written in NodeJS and Bootstrap, then deployed on AWS. Users can submit posts and upload image.

Bomberman May 2019

Developed a 4-player bomberman game in Java with algorithms for calculating explosions and randomized map generation. Collisions are used for kicking bombs and other solid interactions.

Tank Game April 2019

Developed a 2-player top-down shooter tank game in Java that includes a collision detection system using the Visitor Pattern. Features include health UI, powerups, destructible walls, custom maps, and more.

Interpreter March 2019

Programmed an interpreter that reads byte codes from a file written in the mock language X. Each byte code performs a specific action while managing a runtime stack and frames.

Shell March 2019

Wrote a shell command-line interface in C that features common shell commands like cd, ls, etc. The shell can start from any shell client. Uses semaphores and mutex locks for various functions such as pipes.

#### www.bhlai.com/A2Vellum December 2018

Designed and developed a fictional company product website using Bootstrap, HTML, CSS, JavaScript, PHP, and various open-sourced JavaScript Libraries.

Bowlmaster March 2018

Created a 3D bowling game in Unity and C#. Features include 3D physics and real bowling scoring system. The game is deployed on the web using WebGL.