

# Bryan Huang

## MAJOR IN COMPUTER SCIENCE AND ECONOMICS, 3<sup>RD</sup> YEAR

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## TECHNICAL SKILLS

Programming Languages: Java, C++, C#, JavaScript, TypeScript, R, HTML & CSS

Testing: JUnit, Mocha & Chai

**Software:** IntelliJ, VSCode, Eclipse, pgAdmin, Postman & RStudio

#### TECHNICAL WORK EXPERIENCE

# August 2023 – present

## Fullstack Developer Co-op, Tetra Tech

- Designed and executed the complete refactoring of the Flask backend for FusionMap, a
  web-based mapping application, by migrating it to Express in close collaboration with the
  lead developer.
- Developed the first iteration of FusionMap's React Native mobile application, which was subsequently published on both the App Store and Play Store.
- Resolved bugs in the web application's front end and implemented 20+ new features.
- Initiated and maintained a comprehensive test suite using Mocha and Chai, ensuring robust testing and quality assurance.
- Restructured database to align with specific requirements and enhance functionality

Technologies: TypeScript, Python,, PostgreSQL, Node, React, Flask, Express, Mocha, Chai, TailwindCSS, MapBox, DaisyUI, Next.js, GDAL, React Native

## April 2023 – August 2023

### **Software Developer,** Nexus Payments

- Engaged as a software developer at a startup specializing in the creation of a mobile wallet based on cryptocurrency
- Designed and implemented a robust system enabling admins to easily view withdrawal history while ensuring non-repudiation within the system's framework.
- Built a TypeScript-powered backend web application for performing ID verification, enabling seamless updates to a larger Firebase database.

Technologies: Typescript, Firebase, Node, ReactNative, Expo

## September 2022

### Computer Science Teaching Assistant, UBC Department of Computer Science

- August 2023
- Facilitated the development of systematic program design skills among students.
- Collaborated with a team of 3 to manage multiple weekly lab sessions, ensuring a smooth and effective learning experience for all participants.
- Provided guidance and individualized support to students to optimize their acquisition of program development skills.

### June 2021 — September 2022

### Coding Instructor, Code Ninjas

- Educated children between the ages 7-14 in the fundamentals of programming through JavaScript, C++, and Lua.
- Spearheaded summer camps focused on 3D printing, game design and game modifications; guiding and mentoring attendees to foster their creativity and innovation.
- Delivered instruction on the essentials of Unity to students, enabling them to develop skills in game design and 3D modelling.



#### **PROJECTS**

# May 2023 – present

## Portfolio Website (bryanhuang.dev) [Personal]

- Designed and developed a dynamic portfolio website using a combination of JavaScript imports, such as Next.js, to showcase my previous work and professional experiences
- Created an eye-catching branding element by designing a 3D voxel mascot for the website, leveraging Three.js for its implementation and dynamic animations.
- Enhanced the user experience by incorporating engaging animations, including page transitions, into the website using Framer Motion

Technologies: Next.js, Three.js, ChakraUI, FramerMotion

## September 2023

## GCal Hue [Personal]

- October 2023

- Designed, developed, and published a Chrome extension enabling custom color changes for Google Calendar events, enhancing user customization and organization.

Technologies: JavaScript, HTML

#### January 2023 – April 2023

## InsightUBC [Academic]

- With a partner, developed a TypeScript-based query engine from the ground up to search through a database of over 60,000 UBC sections and 300+ rooms
- Designed and implemented a front-end web application using Next.js that utilizes REST endpoints of the query engine.
- Adhered to design patterns to ensure the application of good design principles, resulting in a more maintainable and scalable codebase.

Technologies: TypeScript, Node.js, Next.js, Mocha, Chai

## December 2022

## Platodoro [Personal]

## - January 2023

- Designed and developed a user-friendly Pomodoro timer application with a visually appealing screensaver that dynamically changes to promote focus.
- Created a 3D voxel using Blender and animated through Unity.
- Implemented C# scripts in Unity to handle core features of the Pomodoro timer, such as starting and pausing the timer, managing intervals, etc.

Technologies: C#, Unity

#### January 2022 – April 2022

## **Checkers Application** [Academic]

- Applied OOP concepts such as encapsulation, inheritance, and polymorphism to create a modular and maintainable codebase for a Checkers game.
- Ensured smooth navigation and easy access to different features of the application through a well-organized and user-friendly GUI design implemented with JFrame.
- Utilized JSON serialization to convert the game board's data, including the positions of the checker's pieces, into a JSON format for storage (and vice-versa).

Technologies: Java, JFrame, JUnit

## **EDUCATION**

#### The University of British Columbia, Vancouver, BC

Sept. 2021 – June 2026

4.3 /4.33 GPA

Bachelor of Arts, Major in Computer Science and Economics

**Awards**: Chung Family Scholarship in Arts (2023), Dean's List (2022), BC Achievement Scholarship (2021)