

KAYNE CHU

☎ 647-972-9298 ✉ k33chu@uwaterloo.ca 🌐 kaynechu.com 🔗 linkedin.com/in/kaynechu/ 🏠 github.com/Kayne-cmc

Experience

Microsoft

Feb. 2023 – May 2023

Software Engineer Intern

Vancouver, BC

- Implemented features for several internal software applications used in game development at The Coalition
- Reworked automation process to run custom tests locally for various game builds and devices using C# and WPF
- Ensured efficient and durable application processes by developing multithreaded programs
- Created CI/CD pipeline jobs in Azure DevOps to build and deploy internal libraries used by developers
- Reduced application memory usage by 20% using performance profilers to detect memory leaks

AI Arena

Mar. 2022 – Nov. 2022

Game Developer

Toronto, ON

- Designed and implemented core game logic for an AI-based fighter game using JavaScript and ThreeJS
- Reduced opponent knockout computation time by 90% through approximation of knockback trajectory
- Improved existing visual effects system to allow queuing and playing multiple effects simultaneously
- Streamlined collision detection system by reworking existing spatial hash map updates

MCAP Mortgages

Sep. 2021 – Dec. 2021

Software Engineer Intern

Waterloo, ON

- Implemented front-end features for a large-scale mortgage web application using Vue and Vuex
- Ensured code security through TDD by creating unit tests for modules using Jest with a coverage of 95%
- Optimized project timelines by effectively managing tasks in an Agile environment

BWX Technologies

Jan. 2021 – Apr. 2021

Process Engineer

Cambridge, ON

- Overhauled training evaluation software for a multi-million-dollar nuclear project using Excel VBA
- Improved data collection efficiency by 50% by implementing user feedback and optimizing data compiling features
- Assessed training processes with collected data to evaluate inefficient procedures and provide recommendations

Projects

BrawlBuddies | *React, Express, MongoDB*

- Created a website to retrieve Brawlhalla player data and match users in the same region with similar in-game rank
- Encrypted and secured user information stored in a MongoDB database using JSONWebToken authentication
- Retrieved and updated player data by processing server requests through a REST API created with Express
- Dynamically rendered player information using React components and MaterialUI

Workout Tracker | *React, Express, MongoDB*

- Developed a React web application to create, edit, and display workouts stored in a MongoDB database
- Constructed an Express server to handle POST and GET requests for retrieving and creating workouts

Escape The Cave | *Java, Android Studio*

- Developed a score-based mobile application that involves player interaction with a virtual character using Java and Android Studio
- Worked through several iterations to fix diagnostic issues and optimize the performance of the application

Education

University of Waterloo

Waterloo, ON

Bachelor of Applied Science in Mechanical Engineering

Sep. 2019 – Apr. 2024

Technical Skills

Languages: JavaScript, TypeScript, Java, C++, C#, Python, HTML/CSS, XAML

Frameworks: React, Vue, Vuex, WPF, .NET, Node, Express, MongoDB, MaterialUI

Technologies: Git, Jest, Postman, Heroku, Netlify