KAYNE CHU

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Technical Skills

- **Languages:** JavaScript, TypeScript, Java, C++, C#, HTML, CSS
- **Technologies:** React, Vue, VueX, Express, Node, .Net, MongoDB, Jest

Experience

Game Developer / AI Arena - Toronto, ON   Mar 2022 – Present

- Designed and implemented core game logic for an NFT fighter game using **JavaScript** and **THREEjs**
- Reduced computation time by 90% through a proposed knockout calculation method
- Improved existing visual effects system to allow queuing of effects and playing multiple effects simultaneously
- Eliminated unnecessary hash map updates by implementing an efficient updating system

Software Engineering Intern / MCAP Mortgages – Waterloo, ON   Sept 2021 - Dec 2021

- Implemented new features and fixes for a large-scale mortgage web application with **VueJS** and **VueX**
- Accomplished test-driven development by creating unit tests for application modules using **Jest**
- Organized tasks and effectively manage deadlines by working in an **Agile** environment

Process Engineer / BWX Technologies – Cambridge, ON   Jan 2021 – Apr 2021

- Gained **problem-solving skills** through the development of a timing software using **Excel VBA** for data collection
- Acquired effective **communication skills** by completing detailed summaries for other engineers
- Demonstrated **professionalism** while working with engineers and tradesmen throughout the project

Projects

BrawlBuddies – Full Stack Web Application ⬈   Feb 2021 – June 2021

- Created a website to get Brawlhalla user statistics and match players in the same region with similar in-game rank
- Implemented **JSONWebToken** to encrypt and secure user information stored in a **MongoDB Atlas** database
- Processed server requests to retrieve and update player information from **REST API** calls using **ExpressJS**
- Dynamically rendered information on the application using **ReactJS** components and the **MaterialUI** library

Workout Tracker – MERN Stack Application ⬈   Feb 2021 – Mar 2021

- Developed a web application to create, edit, and display workouts stored in a **MongoDB** database
- Used the **MERN** programming stack to handle POST and GET requests and create a front-end application

Escape The Cave – Java Mobile Game ⬈   June 2020 – Aug 2020

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

aCADemic's Hyperloop Design   Jan 2021

- Collaborated with a team of students to develop a design for the interior of a hyperloop
- Revised designs to meet the given challenge objectives and required features
- Created and presented a 3D model of the hyperloop interior using **SolidWorks**

Education

University of Waterloo – Waterloo, ON   2019 - 2024
Bachelor of Applied Sciences – Mechanical Engineering Co-op