



## Technical Skills

**Languages:** Java, JavaScript, HTML, CSS, Python, R, C, C++, SQL, MATLAB

**Tools & Technologies:** VS Code, Git, MySQL, Node.js, Docker, MongoDB, Android, Linux

**Relevant Courses:** Cybersecurity, Applied VR & Hybrid Media, Database Systems

## Technical Projects

**Mountain Ride Share** [github.com/kza40/MountainRideShare](https://github.com/kza40/MountainRideShare) **Aug. 2024**

### Personal Project

- Designed and developed *Mountain Ride Share*, a web application aimed at reducing transit load and emissions by facilitating driver-rider matches for downhill transportation, utilizing RESTful API using the Express.js framework, enabling real-time route planning and user authentication.
- Implemented Google Maps API integration to enable users to specify pickup and drop-off locations, with interactive mapping features for route planning and distance calculations, enhancing the user experience
- Engineered an emissions-saving feature that calculates and displays environmental impact reductions from carpooling, leveraging MongoDB for dynamic storage and retrieval of user and ride data

**EcoSpectra** **Jun. 2023 – Jul. 2023**

### Semester In Alternate Realities

- Directed an agile team towards building a VR experience using Unity game engine that displays the arch of humanity's relationship with the environment
- Designed and developed a 3D oculus experience featuring interactive objects coded in C#, and a movable character
- Improved Unity applications based on user testing feedback to achieve a logical environment and total immersive experience

**GameKeeper Software** [github.com/kza40/GameKeeper](https://github.com/kza40/GameKeeper) **Dec. 2022**

### Software Development

- Engineered a comprehensive structural and integration test suite utilizing the Junit 5 framework to ensure high code coverage
- Collaborated with a three-person team on GitLab, employing branching strategies for efficient parallel development and seamless code integration
- Regularly communicated with clients to gather and clarify application functionality requirements and enhance overall efficiency

**Spaceship Finder Game** [github.com/kza40/SpaceShipFinder](https://github.com/kza40/SpaceShipFinder) **Oct. 2022**

### Introduction To Software Development

- Implemented the game UI and developed the backend to optimize game operations, ensuring seamless and engaging gameplay
- Developed possibility to change the dimensions of the game to make the game end quicker or longer based on the user's opinion
- Designed user acceptance testing protocols as the final phase of applications development

## Hackathons

### Jumbled Challenge

**Feb. 2023**

#### Mountain Madness 2023, Burnaby, BC

- Developed a Java desktop application that facilitated sending and receiving messages between clients using web sockets, after translation of messages using Google Translate API
- Utilized multi-threading to effectively manage web socket connections, ensuring smooth and efficient communication between clients and the server application
- Designed and implemented a responsive user interface for the application, leveraging Java AWT and Swing libraries

### SAP Social

**Oct. 2022**

#### SAP Invitational Hackathon 2022, Vancouver, BC

- Created an application in a group to promote hybrid work environment and scheduling, using GitHub for collaboration
- Programmed the application using Java, Android Studio, to create a custom reactive user interface with different modes of interaction and screens
- Tested code for robustness; executed edge case, usability, and general reliability analysis

## Technical Work Experience

### Technical Specialist

**Oct. 2020 – Apr. 2022**

#### London Drugs, Coquitlam, BC

- Led a technical team towards performance goals by organizing tasks and offering solutions, achieving sales goals and smooth operation
- Troubleshoot and resolved problems with programs and systems, leading to customer satisfaction
- Provided training on desktops, laptops and mobile devices for company users
- Offered technical helpdesk support to customers on printers, PCs and laptops and mobile devices
- Suggested product offerings and technology upgrades to customers to improve overall security

## Education

### Simon Fraser University, Burnaby, BC

**Expected Apr. 2025**

- Dean's Honour Roll Recipient
- Bachelor of Computing Science

### Technische Universität Darmstadt, Darmstadt, Germany

**Feb. – Sep. 2024**

- International Exchange Semester