Arfaz Hossain

Victoria, British Columbia

www.github.com/arfazhxss
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arfazhxss.ca/resume.pdf

March 15, 2024

Waterworth
Division: Human Resources
Location: Victoria, British Columbia
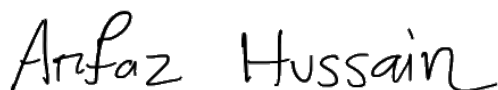
Dear Hiring Manager:

I am excited to apply for the **Software Engineering - Co-op placement** at Waterworth**.** I am eager to learn and grow in the field of computer-software engineering and I believe that this role will help me gain valuable work-experience related to my interests and help me acquire a practical understanding of the software development life cycle in a real-world setting.

I have a fascination for developing web and mobile applications, and I am continually learning new skills through personal projects outside school. I have been involved in more than 13 software development projects, which includes developing an iOS weather application in Swift Programming Language, making a 3D graphical simulation of a Rubik's Cube in OpenGL, C++ and developing web development projects in React, JavaScript and TypeScript. I have interests in the field of Visual Computing and Artificial Intelligence and have been taking an active interest in the field through my coursework and side-projects. I have been an active member in the UVic Engineering Students Society (ESS), UVic Rocketry club (UVR), VikesLab and have volunteered in multiple events, engaged in development projects throughout my time.

As a fourth-year student studying software engineering, I have had the chance to learn the basic concepts of object-oriental programming, software development, software testing and evolution, advanced data structures and algorithms. I have actively contributed to the UVic Rocketry Ground Support team as a front-end developer, where I have developed many front-end web-elements in TypeScript-React. I am familiar with writing queries and designing database schema in PostgreSQL as well as NoSQL Databases and have frequently used tools like MySQL and Mongoose in some of my projects. I am also familiar with testing tools such as Selenium, JUnit, Maven, Gradle, and have experience in writing unit and integration testing. Throughout my previous projects, I have utilized ticketing tools like Jira and Kanban. I have also learned the importance of documentation and code refactoring to ensure reproducibility in my code. Additionally, I have gained insight into the intricacies of following Agile Methodologies in a development environment. I am adaptable and always eager to learn and am confident that I can quickly gain familiarity with any new tools or techniques necessary to excel in this role.

I am currently available for an 8 or a 12-month work term and would be open to the possibility of participating in more than two consecutive terms. Thank you for considering my application. I look forward to the opportunity to further discuss my skills and experience with Waterworth.

Most Sincerely,

Arfaz Hussain

Arfaz Hossain (He/Him)
Software Engineering Student,
University of Victoria

Arfaz Hossain

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Education

Bachelor of Software Engineering	Sep 2021 – Aug 2026
University of Victoria	*Victoria, BC*

Selected Projects

Study Sprints — Feb 2024 – Present — *Victoria, BC*

⊕ https://www.github.com/VikeLabs/Study-Sprints

- Collaborating with a team of developers to create a full-stack Pomodoro application using React, TypeScript, and MongoDB, addressing users' time management requirements while browsing the internet
- Employed NextJS framework using Node in the backend and MongoDB for data storage and retrieval, for users to track and review their past activities within the application interface

Ground Support System — Jul 2023 – Jan 2024 — *Victoria, BC*

⊕ https://www.github.com/UVicRocketry/Ground-Support

- Collaborated with a team of 10-15 developers in developing a full-stack telemetry visualization and post-flight analytical software system for engineering students analyzing rocket performance in real-time
- Implemented 15+ Material-UI components in React with TypeScript, ensuring type safety and fidelity to Figma designs, thereby enhancing adaptability and usability across multiple platforms
- Incorporated design patterns including *Microservice Architecture* and *Entity-Based Design* using Mongoose, streamlining backend development and database interaction

Rubik's Cube (3D Simulation) — Feb 2023 – June 2023 — *Victoria, BC*

⊕ https://www.github.com/arfazhxss/OpenGL-projects

- Developed a 3D simulation utilizing OpenGL libraries GLUT, GLFW, and GLM, incorporating graphics rendering techniques through GLSL (Shader Language) for visualizations, mathematical operations
- Implemented intuitive keyboard and mouse controls, including precise cube rotations with keys such as L, J, I, K, and dynamic zoom functionalities with keyboard shortcuts

Simple Weather Application (iOS) — Apr 2023 – Nov 2023 — *Victoria, BC*

⊕ https://github.com/arfazhxss/Weather-Application

- Developed an iOS application using Swift programming language with a strong emphasis on object-oriented programming principles, ensuring a modular and maintainable codebase
- Implemented a user-friendly interface that seamlessly integrates with OpenWeather API, allowing users to access and navigate through accurate weather information for their current city

Experience

Graphics Coordinator — Jan 2023 – Present — *Victoria, BC*

Engineering Student's Society (ESS)

- Designed and illustrated a total 15+ posters and 20+ social media posts while managing office hours to ensure the availability of the student lounge, maintaining websites and social media accounts

Technical Skills

Languages:	Java, Python, SQL (Postgres), JavaScript, TypeScript, R
Frameworks:	NodeJS, ReactJS, JUnit, MongoDB, Express
Databases:	MySQL, PostgreSQL, MongoDB
Tools:	Git, Docker, GitHub Actions
Libraries:	ReactJS, NextJS, Express, NumPy