

Arfaz Hossain

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Education

Bachelor of Software Engineering

Sep 2021 – Present

University of Victoria

Victoria, BC

Expected Graduation: August 2026

Selected Projects

Ground Support System

Jul 2023 – Present

GitHub: UVicRocketry/Ground-Support

Victoria, BC

- Collaborated with a team of 10-15 developers in developing a telemetry visualization and post-flight analysis tool for rockets through weekly sprint planning sessions
- Implemented 15+ Material-UI components using React-TypeScript following dynamic UI, enhancing adaptability and usability across diverse rocket configurations
- Incorporated design patterns including *Microservice Architecture* and *Entity-Based Design* using MongoDB, streamlining backend development and database interaction

Rubik's Cube (3D Simulation)

Feb 2023 – June 2023

GitHub: arfazhxss/OpenGL-projects

Victoria, BC

- Developed a 3D simulation utilizing OpenGL libraries GLUT, GLFW, and GLM, incorporating advanced graphics rendering techniques through GLSL Shader Language for visualizations and 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

GitHub: arfazhxss/Weather-Application

Victoria, BC

- 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 effortlessly access and navigate through accurate weather information for their current city.

Experience

Graphics Coordinator

Jan 2023 – Present

Engineering Student's Society (ESS)

Victoria, BC

- Designed and illustrated a total 15+ posters and 20+ social media posts while managing office hours to ensure the availability of the student lounge
- Co-ordinated regularly with Vice-President Communications in conveying information about events and services to the engineering student body, maintaining websites, social media accounts and distributing posters on university campus

Technical Skills

Languages: Java, Python, SQL (Postgres), JavaScript, TypeScript, HTML/CSS, R

Frameworks: NodeJS, ReactJS, JUnit, MongoDB, Express

Databases: MySQL, PostgreSQL, MongoDB

Developer Tools: Git, Docker, GitHub Actions

Libraries: React, Express, NumPy

February 19, 2024

Transport Canada

Division: Regional Director General's Office

Location: Vancouver, British Columbia

Dear Hiring Manager:

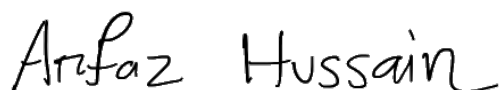
I am excited to apply for the **Engineering Co-op Student Placement** at Transport Canada. I am eager to learn and grow in the field of computer-software and I believe that this role will help me gain valuable work-experience related to my interests and help me acquire a practical understanding of the software development 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 and C+ and developing many web development projects in 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) and UVic Rocketry club (UVR) and have volunteered in multiple events, engaged in development projects throughout my time.

As a third-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-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 Transport Canada.

Most Sincerely,



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