# Arfaz Hossain

Victoria, British Columbia

March 20, 2024

Infinera

Division: Human Resource Location: Ontario, Toronto

Dear Hiring Manager:

I am excited to apply for the **FW Engineering Co-op** in the Portals and Procedures Services at Infinera. 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<sup>++</sup> 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 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 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 Infinera.

Most Sincerely,

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

Arrfaz Hussain\_

# Arfaz Hossain

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### Education

### Bachelor of Software Engineering (BE)

University of Victoria

Sep 2021 – (**Expected**) Aug 2026 Victoria, BC

### Technical Skills

Programming Languages: Python, TypeScript, Java, Objective-C (Swift), C++

Frameworks and Libraries: Node, Next.js, React, Express, Material, Shadon-ui, Tailwind CSS

Rational and non-rational Databases: MySQL, PostgreSQL, MongoDB

Software Project Management Tools: Visual Studio, IntelliJ, JUnit, Eclipse, Maven, Gradle, Git, Docker

## Selected Collaborative Projects

#### Study Sprints Ongoing

Feb 2024 – Present Victoria, BC

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

- Collaborating with a team of 6 developers to create a full-stack Pomodoro-like application utilizing libraries like React, addressing users' time management requirements while browsing the internet
- Employing Next.js 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 15 developers in developing a full-stack telemetry visualization and post-flight analytical software for engineering students analyzing rocket performance in real-time
- Implemented a total of 13 Material-UI components in React with TypeScript, ensuring type safety and fidelity to Figma designs, thereby enhancing adaptability and usability across multiple platforms

# Selected Personal Projects

## Content Management System Dashboard Ongoing

Dec 2023 - Present Victoria, BC

- https://www.github.com/arfazhxss/next/tree/main/ecommerce-admin
- Developing an e-commerce management Dashboard using Next.js and React, integrating Clerk Authentication for administrators and Stripe Setup & Checkout finalization, while implementing features like Dark Mode.
- Implementing a backend infrastructure with Prisma, PlanetScale, and MySQL for efficient data management, ensuring seamless operation of administrative functionalities in the e-commerce platform.

#### Rubik's Cube (3D Simulation)

Feb 2023 – June 2023

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- 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

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

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- Developed a simple iOS application using Swift programming language 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**

Engineering Student's Society (ESS)

Jan 2023 – Present 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, maintaining websites and social media accounts

#### Honors and Awards

• Recipient of University of Victoria's International Entrance Scholarship