
Application Overview

Arfaz Hossain
September 18, 2024

This document contains the following attachments, structured as follows:

- **Page 1: Cover Letter**

This section contains a formal cover letter addressed to the hiring manager. It highlights my relevant skills, experience, and motivation for applying for the position.

- **Pages 2-3: Resume**

My resume provides a detailed overview of my education, technical skills, projects, work experiences, and volunteering activities.

Please feel free to reach out if you require any additional information or have any questions.

September 18, 2024

City of Victoria, Human Resources
Victoria, British Columbia

Dear Hiring Manager,

I am writing to express my interest in the Co-op Student position with the City of Victoria's Engineering Underground Utilities Division. As a software engineering student at the University of Victoria, I am excited about applying my academic knowledge and skills to support engineering projects related to stormwater management and environmental monitoring. I believe this position offers an excellent opportunity for me to contribute to the city's initiatives while gaining valuable hands-on experience.

Throughout my education and project work, I have developed skills that align well with the key duties outlined in this role:

- **Field Data Collection and Environmental Monitoring:** Through my academic background and project work, I have experience working with manual and electronic equipment for data collection. I have contributed to projects that required analyzing field data and working with environmental conditions, which would be valuable in supporting the stormwater management team.
- **Data Management and Reporting:** In my projects, I have regularly worked with database systems like PostgreSQL and MongoDB to manage large datasets, and I have written scripts in Python for data processing. These skills will assist in updating computer files and preparing reports for engineering projects.
- **Technical Drawing and Software Tools:** I have experience working on technical projects involving mapping and design. My work with tools such as Next.js and Figma has given me experience in creating technical drawings and documents, which aligns with your requirement for assisting in the production of engineering drawings and maps.
- **Collaboration and Problem Solving:** My experience in collaborative environments, such as working on the Ground Support System for the UVic Rocketry team, has equipped me with problem-solving skills. I have worked with cross-functional teams, developed tools, and addressed technical challenges similar to those in municipal infrastructure projects.

I am enthusiastic about the opportunity to bring my skills to the City of Victoria and contribute to important projects that benefit the community. I would appreciate the opportunity to discuss my qualifications further and look forward to the possibility of joining your team.

Sincerely,



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

Arfaz Hossain

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EDUCATION

University of Victoria

Bachelor of Engineering in Software Engineering

Victoria, BC

Sept. 2021 - Present

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, Objective-C (Swift), C++, HTML/CSS, R

Frameworks and Libraries: Node, Next.js, React, Express, Material, Shadcn, Tailwind CSS

Databases: MySQL, PostgreSQL, SQLite, MongoDB, Redis, DynamoDB, CloudSQL

Developer Tools: Visual Studio, IntelliJ, JUnit, Eclipse, Maven, Gradle, Git, Docker

TECHNICAL PROJECTS

Course Planner | Next.js, React, TypeScript, PostgreSQL, Tailwind

Feb 2024 - Present

[www.github.com/arfazhxss/course-planner](https://github.com/arfazhxss/course-planner)

Victoria, BC

- Developed a course planning tool using Next.js to help students plan courses and track degree progress
- Integrated PostgreSQL for database management of course data and user information
- Implemented drag-and-drop functionality in React with state functions to enhance user interactivity
- Designed the User Experience using TailwindCSS to create a seamless and intuitive user experience

Automated Application System | Bash, Python, LaTeX

Dec 2023 - Present

[www.github.com/arfazhxss/app-sys](https://github.com/arfazhxss/app-sys)

Victoria, BC

- Automated and streamlined entire job application process optimizing workflow and data handling
- Utilized multithreading for simultaneous data extraction and processing tasks, reducing runtime by 60%
- Built command-line tools for data input, and batch file processing, reducing manual efforts by 90%
- Increased consistency by 70% by implementing proper data cleanup and extraction

Jabref - Open Source Contributions | Java, JUnit

Dec 2023 - May 2024

[www.github.com/arfazhxss/jabref](https://github.com/arfazhxss/jabref)

Victoria, BC

- Developed 100+ unit tests to ensure end-to-end correctness of file lookup in JabRef's database
- Implemented 20+ caching tests to optimize JabRef's performance and memory management
- Implemented 30+ integration tests to verify correct interactions between multiple modules and classes
- Engineered end-to-end functional tests validating bibliography management workflows

Ground Support System | React, TypeScript, MongoDB, Figma

Jul 2023 - Jan 2024

[www.github.com/UVicRocketry/Ground-Support](https://github.com/UVicRocketry/Ground-Support)

Victoria, BC

- Collaborated with 13 developers to create portable telemetry software for rocket performance analysis
- Developed front-end components using TypeScript and contributed to the final Figma designs
- Integrated live telemetry data from MongoDB database into MaterialUI tables for post-flight analysis
- Implemented data visualizations with MaterialUI tables and charts for engineering students

Rubik's Cube (3D Simulation) | C++

Feb 2023 - June 2023

[www.github.com/arfazhxss/rubiks-cube-cpp](https://github.com/arfazhxss/rubiks-cube-cpp)

Victoria, BC

- Developed a 3D simulation with OpenGL, integrating GLSL for visuals and math operations
- Created intuitive keyboard controls for cube rotations using keys like L, J, I, K
- Enhanced user interaction with dynamic zoom via keyboard shortcuts

EXPERIENCES

Software Team Lead

Feb 2024 - Present

VikeLabs

Victoria, BC

- Collaborated with 5+ team leads to organize workshops for 100+ CS and software engineering students
- Collaborating with executives from 3+ student clubs to co-host tech events, boosting attendance by 25%
- Fostering partnerships with other student organizations, expanding resource-sharing opportunities

Graphics Coordinator

Jan 2023 - Present

Engineering and Computer Science Students Society

Victoria, BC

- Created 40+ posters and social media campaigns for engineering events
- Volunteered at 20+ events, enhancing student engagement and participation
- Updated and maintained ECSS website and exam bank accessed by 600+ engineering students

Various Positions: Grocery Clerk, Cashier and Deli Clerk

Apr 2022 - Sept 2022

Save On Foods

Victoria, BC

- Oversaw store operations with a team of 10-12 employees which ensured smooth daily workflow
- Handled customer inquiries while collaborated with 3 departments through effective communication channels
- Maintained inventory accuracy, reducing stock shortages by 7% through detailed record-keeping and rotation

Customer Service Representative, Cashier

Sept 2021 - May 2022

Tim Hortons

Victoria, BC

- Served 150+ customers daily, ensuring friendly and efficient service
- Managed cash transactions with 100% accuracy while training new staff members
- Prepared and served coffee and food to company standards, ensuring consistent quality

Data Analyst Intern

Jan 2021 - Aug 2021

Moment Touch Properties Ltd.

Dhaka, Bangladesh

- Analyzed real estate market data using Excel which improved accuracy of property valuations by 7%
- Developed Python scripts to automate data scraping and bash scripts for cleaning and analysis
- Compiled and presented data reports through automated Excel macros processes

VOLUNTEERING EXPERIENCES

Mentor, Volunteer

Jan 2023 - Present

University of Victoria Students Society

Victoria, BC

- Mentored 5 first-year students, providing academic guidance and fostering a supportive community
- Volunteered 50+ hours to support and enhance the international student experience

Rescue Volunteer

Aug 2019 - May 2021

Bangladesh Animal Welfare Foundation, Obhoyaronno

Dhaka, Bangladesh

- Advocated for responsible pet ownership through community outreach, creating 15-20 monthly posters
- Collaborated with teams of 5-7, including volunteers and veterinarians, rescuing 10-15 street animals
- Built and maintained strong relationships with local businesses to support animal welfare initiatives

Magazine and Event Executive

June 2016 - May 2019

Remians Language Club

Dhaka, Bangladesh

- Led a team of 150+ members in creating and distributing annual magazines, enhancing club visibility
- Secured sponsorships from 10+ local businesses, raising funds to support club events and activities
- Utilized Adobe Creative Suite to design educational materials for community engagement

Debater, Graphics Coordinator

Jan 2016 - Mar 2018

Remians Debating Society

Dhaka, Bangladesh

- Led a team of 5 to organize inter-school debate tournaments, attracting 100+ participants each event
- Collaborated with a team to organize over 15 debate events, ensuring smooth logistics

REFERENCES

Le Hung Nguyen

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Computer Engineering, University of Victoria*

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Amazon Payment Platforms*

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CERTIFICATIONS, HONORS AND AWARDS

- **Recipient of University of Victorias International Entrance Scholarship** 2021 - 2022
- **International English Language Testing System (IELTS), Grade: 8.0/9.0** 2020