## Arfaz Hossain

+1 (250) 880 8402 | arfazhussain@uvic.ca | • www.linkedin.com/in/arfazhussain | • www.github.com/arfazhxss www.arfazhxss.ca

#### Education

### Bachelor of Software Engineering (BSEng)

University of Victoria

Sep 2021 – (exp.) Aug 2026 Victoria, BC

#### Technical Skills

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

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

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

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

### 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 application utilizing libraries like React, addressing users' time management requirements
- Utilizing Next. is framework for efficient routing and MongoDB for data storage and retrieval, in order to track and review past activities of users over the last day, month and year

#### 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
- Developed 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 Ongoing

Dec 2023 - Present

Victoria. BC

- https://www.github.com/arfazhxss/next/tree/main/ecommerce-admin
- Building an e-commerce management platform for administrators using Next.js, integrating Clerk Authentication for user sign-up and sign-in management and Stripe for payment finalization
- Implementing a backend infrastructure with Prisma, PlanetScale, and MySQL for efficient user data management

#### 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 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**

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, maintaining websites and social media accounts

#### Honors and Awards

• Recipient of University of Victoria's International Entrance Scholarship

## Arfaz Hossain

Victoria, British Columbia

March 22, 2024

Coast Capital Savings Credit Union

Division: Human Resources

Location: Victoria, British Columbia

Dear Hiring Manager:

I am excited to apply for the Co-op Student as a T24 Software Developer at Coast Capital Savings. 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 software engineering student at University of Victoria, 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 a 4, 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 Coast Capital Savings.

Most Sincerely,

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

Arrfaz Hussain

University of Victoria

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| SESSION     | COURSE           |           | DESCRIPTION                               | UNIT     | GRADE   |         |        | AWARDED | NOTE | COMPARATIVE |      |
|-------------|------------------|-----------|---|----------|---------|---------|--------|---------|------|-------------|------|
|             |                  |           |   | VALUE    |         |         | POINT  | UNITS   |      | MEAN        | SIZE |
|             |                  | ACA       | ADEMIC RECORD FOR UNDERGRADUATE S         | TUDIES E | XCLUDIN | NG L    | AW PR  | OGRAMS  |      |             |      |
| WINTER 2021 | -2022            |           |   |          |         |         |        |         |      |             |      |
| First Term: |                  |           |   |          |         |         |        |         |      |             |      |
|             | ERING B.I        |           |   |          |         |         |        |         |      |             |      |
| (00-0       | P ENGINI<br>ENGR | 110       | DESIGN AND COMMUNICATION I                | 2.5      | 76%     | В       | 5      | 2.5     |      | 79%         | 166  |
|             | ENGR             | 130       | INTRODUCTION TO PROFESSIONAL              | 0.5      | 79%     |         | 6      | 0.5     |      | 87%         | 204  |
|             | LITOIT           | 100       | PRACTICE                                  | 0.0      | 1070    | ٠.      | Ŭ      | 0.0     |      | 07 70       | 201  |
|             | MATH             | 100       | CALCULUS I                                | 1.5      | 72%     | B-      | 4      | 1.5     |      | 72%         | 209  |
|             | MATH             | 110       | MATRIX ALGEBRA FOR ENGINEERS              | 1.5      | 75%     | В       | 5      | 1.5     |      | 69%         | 135  |
| Second Te   | rm: Jan - A      | pr 2022   |   |          |         |         |        |         |      |             |      |
| ENGINE      | ERING B.I        | ĖNG.      |   |          |         |         |        |         |      |             |      |
| (CO-C       | P ENGIN          | ,         |   |          |         | _       |        |         |      |             |      |
|             | CSC              | 111       | FUNDAMENTALS OF PROGRAMMING               | 1.5      | 78%     | B+      | 6      | 1.5     |      | 61%         | 117  |
|             | MATH             | 101       | WITH ENGINEERING APPLICATIONS CALCULUS II | 1.5      | 66%     | $C^{+}$ | 3      | 1.5     |      | 73%         | 180  |
|             | MATH             | 122       | LOGIC AND FOUNDATIONS                     | 1.5      | 81%     |         | 3<br>7 | 1.5     |      | 73%         | 75   |
|             | PHYS             | 110       | INTRODUCTORY PHYSICS I                    | 1.5      | 75%     |         | 5      | 1.5     |      | 57%         | 129  |
|             |                  |           | A = 5.04 (05MAY2022)                      | 1.0      | 1070    | _       | Ü      | 1.0     |      | 01 70       | 120  |
|             |                  | IN 12.0   | ,   |          |         |         |        |         |      |             |      |
|             |                  |           | EMIC STANDING (05MAY2022)                 |          |         |         |        |         |      |             |      |
| SUMMER 202  | 2                |           | ,   |          |         |         |        |         |      |             |      |
| Summer Se   |                  | v - Aua 2 | 022                                       |          |         |         |        |         |      |             |      |
|             | ERING B.I        | , ,       |   |          |         |         |        |         |      |             |      |
| (CO-C       | P ENGIN          |           |   |          |         |         |        |         |      |             |      |
|             | CSC              | 115       | FUNDAMENTALS OF PROGRAMMING II            | 1.5      | 76%     | В       | 5      | 1.5     |      | 74%         | 91   |
|             | SESSIC           | NAL GP    | A = 5.00 (17AUG2022)                      |          |         |         |        |         |      |             |      |
|             |                  | IN 1.5    |   |          |         |         |        |         |      |             |      |
|             | IN GOO           | D ACADI   | EMIC STANDING (22AUG2022)                 |          |         |         |        |         |      |             |      |
| WINTER 2022 | -2023            |           |   |          |         |         |        |         |      |             |      |
| First Term: | •                |           |   |          |         |         |        |         |      |             |      |
|             | ERING B.         |           |   |          |         |         |        |         |      |             |      |
|             | WARE EN          |           | NG  |          |         |         |        |         |      |             |      |
| (00-0       | P ENGINE<br>CSC  | 225       | ALGORITHMS AND DATA STRUCTURES I          | 1.5      | 53%     | ח       | 1      | 1.5     |      | 73%         | 196  |
|             | ECON             | 180       | INTRODUCTION TO ECONOMICS AND             | 1.5      | 90%     |         | 9      | 1.5     |      | 81%         | 150  |
|             | 20014            | 100       | FINANCIAL PROJECT EVALUATION              | 1.5      | 50 /0   | ,       | 3      | 1.5     |      | 0170        | 100  |
|             | SENG             | 265       | SOFTWARE DEVELOPMENT METHODS              | 1.5      | 70%     | R-      | 4      | 1.5     |      | 70%         | 196  |

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| Course History a    | at the Un                       | iversity o         | of Victoria                                       |               |        |                |                  |      |                          |      |
|---------------------|---------------------------------|--------------------|---|---------------|--------|----------------|------------------|------|--------------------------|------|
| SESSION             | COURSE                          |                    | DESCRIPTION                                       | UNIT<br>VALUE | GRADE  | GRADE<br>POINT | AWARDED<br>UNITS | NOTE | COMPARATIVE<br>MEAN SIZE |      |
|                     | ERING B.                        | S.ENG.<br>IGINEERI | NG  |               |        |                |                  |      | WEAN                     | SIZE |
| (00 0.              | CSC                             | 230                | INTRODUCTION TO COMPUTER ARCHITECTURE             | 1.5           | 63% C  | 2              | 1.5              |      | 76%                      | 127  |
|                     | ENGR                            | 120                | DESIGN AND COMMUNICATION II                       | 2.5           | 88% A  | 8              | 2.5              |      | 87%                      | 173  |
|                     | <b>ENGR</b>                     | 141                | ENGINEERING MECHANICS                             | 1.5           | 65% C  | + 3            | 1.5              |      | 71%                      | 103  |
|                     | STAT                            | 260                | INTRODUCTION TO PROBABILITY AND STATISTICS I      | 1.5           | 65% C  | + 3            | 1.5              |      | 79%                      | 138  |
|                     | SESSIC                          | NAL GP             | A = 4.61 (08MAY2023)                              |               |        |                |                  |      |                          |      |
|                     |                                 | ΓIN 11.5           |   |               |        |                |                  |      |                          |      |
|                     | IN GOO                          | D ACADI            | EMIC STANDING (08MAY2023)                         |               |        |                |                  |      |                          |      |
| SUMMER 2023         | 3                               |                    |   |               |        |                |                  |      |                          |      |
|                     | ERING B.<br>VARE EN<br>P ENGINI | S.ENG.<br>IGINEERI | NG  |               |        |                |                  |      |                          |      |
|                     | CSC                             | 226                | ALGORITHMS AND DATA STRUCTURES II                 | 1.5           | 65% C  |                | 1.5              |      | 82%                      | 107  |
|                     | PHIL                            | 201                | CRITICAL THINKING                                 | 1.5           | 70% B- |                | 1.5              |      | 73%                      | 299  |
|                     | SENG                            | 275                | SOFTWARE TESTING                                  | 1.5           | 74% B  | -              | 1.5              |      | 81%                      | 45   |
|                     | SENG                            | 310                | HUMAN COMPUTER INTERACTION                        | 1.5           | 92% A  | + 9            | 1.5              |      | 83%                      | 103  |
|                     | SESSIC                          | NAL GP             | A = 5.25 (18AUG2023)                              |               |        |                |                  |      |                          |      |
| CUMULA              | IN GOO                          |                    | UNITS<br>EMIC STANDING (21AUG2023)                |               |        |                |                  |      |                          |      |
| <b>WINTER 2023-</b> | -2024                           |                    |   |               |        |                |                  |      |                          |      |
|                     | ERING B.                        | S.ENG.<br>IGINEERI | NG  |               |        |                |                  |      |                          |      |
| ,                   | ASTR                            | 101                | EXPLORING THE NIGHT SKY                           | 1.5           | DEF    | 0              | 0.0              |      | N/                       | 'A   |
|                     | CHEM                            | 101                | FUNDAMENTALS OF CHEMISTRY FROM ATOMS TO MATERIALS | 1.5           | 49% F  | 0              | 0.0              |      | 70%                      | 315  |
|                     | CSC                             | 370                | DATABASE SYSTEMS                                  | 1.5           | 57% D  | 1              | 1.5              |      | 66%                      | 130  |
|                     | ECE                             | 260                | CONTINUOUS-TIME SIGNALS AND SYSTEMS               | 1.5           | 20% F  | 0              | 0.0              |      | 66%                      | 98   |

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|----------------|--------------|---------------|-----------------------------------|---------------|-----------|----------------|------------------|------|--------------------------|
| SESSION        | COUR         | SE            | DESCRIPTION                       | UNIT<br>VALUE | GRADE     | GRADE<br>POINT | AWARDED<br>UNITS | NOTE | COMPARATIVE<br>MEAN SIZE |
| Second Te      | erm: Jan - A | pr 2024       |                                   |               |           |                |                  |      |                          |
| ENGINE         | EERING B.    | S.ENG.        |                                   |               |           |                |                  |      |                          |
| SOF            | WARE EN      | <b>GINEER</b> | ING                               |               |           |                |                  |      |                          |
| (CO-0          | OP ENGINE    | EERING)       |                                   |               |           |                |                  |      |                          |
|                | CSC          | 305           | INTRODUCTION TO COMPUTER GRAPHICS | 1.5           | CONTINUIN | NG             |                  |      |                          |
|                | CSC          | 320           | FOUNDATIONS OF COMPUTER SCIENCE   | 1.5           | CONTINUIN | ١G             |                  |      |                          |
|                | ECE          | 363           | COMMUNICATION NETWORKS            | 1.5           | CONTINUIN | ١G             |                  |      |                          |
|                | SENG         | 371           | SOFTWARE EVOLUTION                | 1.5           | CONTINUIN | ١G             |                  |      |                          |