Arfaz Hossain

Victoria, British Columbia

github.com/arfazhxss
linkedin.com/in/arfazhussain
arfazhxss.ca/resume.pdf

March 9, 2024

Toronto Hydro
Division: Science, Policy & Inspection Division
Location: Victoria, British Columbia

Dear Hiring Manager:

I am excited to apply for the **Senior Technical Student - Co-op placement** at Toronto Hydro**.** 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 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) 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 to 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 Toronto Hydro.

Most Sincerely,

Arfaz Hussain

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

Arfaz Hossain

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www.arfazhxss.ca

Education

Bachelor of Software Engineering — Sep 2021 – Present

University of Victoria — *Victoria, BC*

Expected Graduation: **August 2026**

Selected Projects

Study Sprints — Feb 2024 – Present

GitHub: VikesLab/Study-Sprints — *Victoria, BC*

- Collaborating with a team of developers to create a full-stack Pomodoro application using React, TypeScript, and MongoDB, addressing users' time management requirements comprehensively
- Employing NextJS to design a robust backend system, integrating MongoDB for data storage and retrieval, enabling users to track and review their past activities seamlessly within the application interface

Ground Support System — Jul 2023 – Jan 2024

GitHub: UVicRocketry/Ground-Support — *Victoria, BC*

- 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

GitHub: arfazhxss/OpenGL-projects — *Victoria, BC*

- 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

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, 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

UNOFFICIAL TRANSCRIPT OF STUDIES AT THE UNIVERSITY OF VICTORIA

FOR Arfaz Hossain (V00984826) AS OF 7 Feb 2024

If you require additional information please consult the University of Victoria calendar
by copying and pasting the following link to your browser: http://uvic.ca/calendar/

Course History at the University of Victoria

SESSION	COURSE		DESCRIPTION	UNIT VALUE	GRADE	GRADE POINT	AWARDED UNITS	NOTE	COMPARATIVE MEAN	COMPARATIVE SIZE
ACADEMIC RECORD FOR UNDERGRADUATE STUDIES EXCLUDING LAW PROGRAMS										
WINTER 2021-2022										
First Term: Sep - Dec 2021										
ENGINEERING B.ENG.										
(CO-OP ENGINEERING)										
	ENGR	110	DESIGN AND COMMUNICATION I	2.5	76%	B	5	2.5	79%	166
	ENGR	130	INTRODUCTION TO PROFESSIONAL PRACTICE	0.5	79%	B+	6	0.5	87%	204
	MATH	100	CALCULUS I	1.5	72%	B-	4	1.5	72%	209
	MATH	110	MATRIX ALGEBRA FOR ENGINEERS	1.5	75%	B	5	1.5	69%	135
Second Term: Jan - Apr 2022										
ENGINEERING B.ENG.										
(CO-OP ENGINEERING)										
	CSC	111	FUNDAMENTALS OF PROGRAMMING WITH ENGINEERING APPLICATIONS	1.5	78%	B+	6	1.5	61%	117
	MATH	101	CALCULUS II	1.5	66%	C+	3	1.5	73%	180
	MATH	122	LOGIC AND FOUNDATIONS	1.5	81%	A-	7	1.5	73%	75
	PHYS	110	INTRODUCTORY PHYSICS I	1.5	75%	B	5	1.5	57%	129
	SESSIONAL GPA = 5.04 (05MAY2022)									
	CREDIT IN 12.0 UNITS									
	IN GOOD ACADEMIC STANDING (05MAY2022)									
SUMMER 2022										
Summer Session: May - Aug 2022										
ENGINEERING B.ENG.										
(CO-OP ENGINEERING)										
	CSC	115	FUNDAMENTALS OF PROGRAMMING II	1.5	76%	B	5	1.5	74%	91
	SESSIONAL GPA = 5.00 (17AUG2022)									
	CREDIT IN 1.5 UNITS									
	IN GOOD ACADEMIC STANDING (22AUG2022)									
WINTER 2022-2023										
First Term: Sep - Dec 2022										
ENGINEERING B.S.ENG.										
SOFTWARE ENGINEERING										
(CO-OP ENGINEERING)										
	CSC	225	ALGORITHMS AND DATA STRUCTURES I	1.5	53%	D	1	1.5	73%	196
	ECON	180	INTRODUCTION TO ECONOMICS AND FINANCIAL PROJECT EVALUATION	1.5	90%	A+	9	1.5	81%	150
	SENG	265	SOFTWARE DEVELOPMENT METHODS	1.5	70%	B-	4	1.5	70%	196

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Second Term: Jan - Apr 2023										
ENGINEERING B.S.ENG.										
SOFTWARE ENGINEERING (CO-OP ENGINEERING)										
	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
	ENGR	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
	SESSIONAL GPA = 4.61 (08MAY2023)									
	CREDIT IN 11.5 UNITS									
	IN GOOD ACADEMIC STANDING (08MAY2023)									
SUMMER 2023										
Summer Session: May - Aug 2023										
ENGINEERING B.S.ENG.										
SOFTWARE ENGINEERING (CO-OP ENGINEERING)										
	CSC	226	ALGORITHMS AND DATA STRUCTURES II	1.5	65% C+	3	1.5		82%	107
	PHIL	201	CRITICAL THINKING	1.5	70% B-	4	1.5		73%	299
	SENG	275	SOFTWARE TESTING	1.5	74% B	5	1.5		81%	45
	SENG	310	HUMAN COMPUTER INTERACTION	1.5	92% A+	9	1.5		83%	103
	SESSIONAL GPA = 5.25 (18AUG2023)									
	CREDIT IN 6.0 UNITS									
	IN GOOD ACADEMIC STANDING (21AUG2023)									
CUMULATIVE GPA: 4.92										
WINTER 2023-2024										
First Term: Sep - Dec 2023										
ENGINEERING B.S.ENG.										
SOFTWARE ENGINEERING (CO-OP ENGINEERING)										
	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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Second Term: Jan - Apr 2024										
ENGINEERING B.S.ENG.										
SOFTWARE ENGINEERING (CO-OP ENGINEERING)										
	CSC	305	INTRODUCTION TO COMPUTER GRAPHICS	1.5	CONTINUING					
	CSC	320	FOUNDATIONS OF COMPUTER SCIENCE	1.5	CONTINUING					
	ECE	363	COMMUNICATION NETWORKS	1.5	CONTINUING					
	SENG	371	SOFTWARE EVOLUTION	1.5	CONTINUING					

END OF TRANSCRIPT