## Arfaz Hossain

Victoria, British Columbia

April 25, 2024

**BC** Ferries

Division: Human Resource

Location: Victoria, British Columbia

Dear Hiring Manager:

I am excited to apply for the **Energy Management Engineer - Co-op Placement** at **BC Ferries**. I am a software engineering student at the University of Victoria in British Columbia. I am eager to learn and grow in the field of computer and 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 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 Engineering Students Society and UVic Students Society where I have worked as a mentor during my second year as well as volunteered in multiple events besides engaging in development projects throughout my time.

Throughout my academic endeavours, 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* and *VikeLabs* as a full-stack web developer, where I have spent much of my time collaborating and developing solutions to issues while reviewing codes mostly written in TypeScript and Python. My experience includes developing schemas in both MongoDB and PostgreSQL using Atlas, as well as other database tools and services especially Prisma, PlanetScale, and Mongoose. Throughout my projects, I have used automation and testing frameworks such as Selenium, Puppeteer, JUnit, Maven, Gradle. While working in teams at *UVic Rocketry*, I became familiar using ticketing tools, such as Jira and Kanban, which helped me gain insight into the importance of following Agile methodologies in a development environment. I strongly believe that I am adaptable and flexible when it comes to taking responsibilities and delivering results and am confident in my ability to quickly gain familiarity with new tools and 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 BC Ferries.

Most Sincerely,

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

Arrfaz Hussain

University of Victoria

## Arfaz Hossain

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### www.arfazhxss.ca

#### EDUCATION

## Bachelor of Software Engineering (BE)

University of Victoria

Sept. 2021 - PresentVictoria, BC

## TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, Objective-C (Swift), C++, HTML/CSS, R Frameworks and Libraries: Node, Next.js, React, Express, Material, Shadon, Tailwind Databases: MySQL, PosgreSQL, SQLite, MongoDB, Redis, DynamoDB, CloudSQL Developer Tools: Visual Studio, IntelliJ, JUnit, Eclipse, Maven, Gradle, Git, Docker

## SELECTED COLLABORATIVE PROJECTS

## **Study Sprints**

github.com/VikeLabs/Study-Sprints

Feb 2024 – Present Victoria, BC

- Collaborating with a team of 6 developers to create a full-stack Pomodoro application utilizing React with TypeScript, addressing users' time management requirements
- Utilizing Next.js framework for efficient routing and MongoDB for data storage and retrieval, to track and review past activities of users over the last day, month and year

## Ground Support System

github.com/UV icRocketry/Ground-Support

Jul 2023 – Jan 2024 Victoria, BC

- Collaborated with a team of 13 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, enhancing adaptability and usability across multiple platforms

## SELECTED PERSONAL PROJECTS

## Rubik's Cube (3D Simulation)

github.com/arfazhxss/OpenGL-projects

Feb 2023 – June 2023 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)

github.com/arfazhxss/Weather-Application

Apr 2023 – Nov 2023 Victoria, BC

- 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

### Relevant Experiences

## Software Team Lead

VikeLabs

Feb 2024 – Present Victoria, BC

• Simultaneously working in 3 full-stack projects courseup, coopme and study-sprints facilitating collaboration with team leads through meetings and progress tracking across teams

## Graphics Coordinator Engineering Student's Society

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

## **Grocery Clerk**

Save On Foods

Sept. 2021 – Aug 2023 Victoria. BC

• Oversaw store operations in a 10-to-12-member team while addressing 50 inquiries each shift, maintaining inventory through detailed stock records and rotations, helping in reducing stock shortages by 7%

#### Honors and Awards

• Recipient of University of Victoria's International Entrance Scholarship

# UNOFFICIAL TRANSCRIPT OF STUDIES AT THE UNIVERSITY OF VICTORIA FOR Arfaz Hossain (V00984826) AS OF 24 Apr 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/

ourse History a	at the Un	iversity o	of Victoria							
SESSION COURSE		SE	DESCRIPTION		UNIT GRADE VALUE		AWARDED UNITS	NOTE	COMPAR MEAN	ATIVE SIZE
		AC	ADEMIC RECORD FOR UNDERGRADUATE S	TUDIES E	XCLUDING	S LAW PF	ROGRAMS			
WINTER 2021	-2022									
	Sep - Dec ERING B.I P ENGINI	ENG.								
(0-00)	ENGR	110	DESIGN AND COMMUNICATION I	2.5	76% E	3 5	2.5		79%	16
	ENGR	130	INTRODUCTION TO PROFESSIONAL PRACTICE	0.5	79% E		0.5		87%	20
	MATH	100	CALCULUS I	1.5	72% E	3- 4	1.5		72%	20
	MATH	110	MATRIX ALGEBRA FOR ENGINEERS	1.5	75% E	5	1.5		69%	13
	ERING B.I P ENGINI	ENG. EERING)								
	CSC	111	FUNDAMENTALS OF PROGRAMMING WITH ENGINEERING APPLICATIONS	1.5	78% E		1.5		61%	11
	MATH	101	CALCULUS II	1.5	66% C		1.5		73%	18
	MATH	122	LOGIC AND FOUNDATIONS	1.5	81% <i>A</i>		1.5		73%	75
	CREDIT	IN 12.0	INTRODUCTORY PHYSICS I A = 5.04 (05MAY2022) UNITS EMIC STANDING (05MAY2022)	1.5	75% E	3 5	1.5		57%	12
SUMMER 2022	2									
	ession: Ma ERING B.I P ENGINI CSC	ÉNG.	022 FUNDAMENTALS OF PROGRAMMING II	1.5	76% E	3 5	1.5		74%	91
	SESSIC	NAL GP	A = 5.00 (17AUG2022)	1.5	7070 E	, 3	1.0		7470	J
WINTER 2022										
SOFT\	Sep - Dec ERING B.: WARE EN P ENGINI	S.ENG. GINEER	NG							
(500	CSC	225	ALGORITHMS AND DATA STRUCTURES I	1.5	53% E	) 1	1.5		73%	19
	ECON	180	INTRODUCTION TO ECONOMICS AND FINANCIAL PROJECT EVALUATION	1.5	90% A	<b>\+</b> 9	1.5		81%	15
	SENG	265	SOFTWARE DEVELOPMENT METHODS	1.5	70% E	3- 4	1.5		70%	19

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SOFT	m: Jan - A ERING B. WARE EN P ENGINI	S.ENG. IGINEERI	NG								
(3.2.2	CSC	230	INTRODUCTION TO COMPUTER ARCHITECTURE	1.5	63%	С	2	1.5		76%	127
	ENGR	120	DESIGN AND COMMUNICATION II	2.5	88%		8	2.5		87%	173
	ENGR	141	ENGINEERING MECHANICS	1.5	65%		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)								
		TIN 11.5									
		D ACADI	EMIC STANDING (08MAY2023)								
SUMMER 202	-										
SOFT	ERING B. WARE EN P ENGINI	S.ENG. IGINEERI	NG								
	CSC	226	ALGORITHMS AND DATA STRUCTURES II	1.5	65%		3	1.5		82%	107
	PHIL	201	CRITICAL THINKING	1.5	70%		4	1.5		73%	298
	SENG	275	SOFTWARE TESTING	1.5	74%		5	1.5		81%	45
	SENG	310	HUMAN COMPUTER INTERACTION	1.5	92%	A+	9	1.5		83%	103
			A = 5.25 (18AUG2023)								
		TIN 6.0									
CUMULA			EMIC STANDING (21AUG2023)								
		1. 4.32									
WINTER 2023	-	2022									
SOFT	Sep - Dec ERING B. WARE EN P ENGINI	S.ENG. IGINEERI	NG								
•	ASTR	101 <sup>′</sup>	EXPLORING THE NIGHT SKY	1.5	68%	C+	3	1.5		67%	23
	CHEM	101	FUNDAMENTALS OF CHEMISTRY FROM ATOMS TO MATERIALS	1.5	49%	F	0	0.0		70%	316
	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		67%	96

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Course History	at the Un	iversity (	of Victoria						
SESSION	COUF	RSE	DESCRIPTION	UNIT VALUE	GRADE	GRADE POINT	AWARDED UNITS	NOTE	COMPARATIVE MEAN SIZE
SOFT	rm: Jan - A ERING B. WARE EN OP ENGIN CSC	S.ENG. IGINEER		1.5	CONTINUI	NC			
	CSC	303	GRAPHICS	1.5	CONTINUI	NG			
	CSC	320	FOUNDATIONS OF COMPUTER SCIENCE	1.5	CONTINUI				
	ECE	363	COMMUNICATION NETWORKS	1.5	CONTINUI	NG			
	SENG	371	SOFTWARE EVOLUTION	1.5	5 CONTINUING				
	STAND	ING PEN	DING GRADES (22APR2024)						
SUMMER 202	24								
SOFT	ession: Ma ERING B. WARE EN OP ENGIN	S.ENG. IGINEER	ING						
,	CHEM	101	FUNDAMENTALS OF CHEMISTRY FROM ATOMS TO MATERIALS	1.5	REGISTER	RED			
	CSC	320	FOUNDATIONS OF COMPUTER SCIENCE	1.5	REGISTER	RED			
	ECE	260	CONTINUOUS-TIME SIGNALS AND SYSTEMS	1.5	REGISTER	RED			
END OF TRANSCRIPT									