## Arfaz Hossain

Victoria, British Columbia

May 24, 2024

City of Victoria

Division: Engineering & Public Works Location: Victoria, British Columbia

Dear Hiring Manager:

I am excited to apply for the **Transportation Student - Co-op Placement** at **City of Victoria**. 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 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 software development projects throughout my time.

Throughout my academic endeavours, I have had the chance to learn the basic concepts of object-oriental programming, software architecture and development, testing and evolution, 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. I also have worked with projects following networking protocols and have experience working with debugging tools and version control systems like Git and Subversion. While working in teams at UVic Rocketry, I used ticketing tools, such as Jira and Kanban. I am planning to specialize in visual computing and data mining, involved in projects that are closely tied to my interests. I believe that my strength lies in my ability to work independently, collaborating, adapting to new environments, and gaining familiarity with new tools necessary to excel in this role.

I am currently available for a 4 or 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 City of Victoria.

Most Sincerely,

Arfaz Hossain (He/Him)

Software Engineering Student,

Arrfaz Hussain\_

University of Victoria

## Arfaz Hossain

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

### 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/UVicRocketry/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

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# UNOFFICIAL TRANSCRIPT OF STUDIES AT THE UNIVERSITY OF VICTORIA FOR Arfaz Hossain (V00984826) AS OF 8 May 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 Un	iversity (	of Victoria								
SESSION	SESSION COURSE		DESCRIPTION	UNIT VALUE	GRADE		GRADE POINT	AWARDED UNITS	NOTE	COMPAR MEAN	ATIVE SIZE
		AC	ADEMIC RECORD FOR UNDERGRADUATE	STUDIES E	XCLUDIN	NG L	.AW PR	OGRAMS			
WINTER 202	1-2022										
First Term:											
	EERING B.										
)-00)	(CO-OP ENGINEERING) ENGR 110		DESIGN AND COMMUNICATION I	2.5	76%	В	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%	В	5	1.5		69%	135
	erm: Jan <i>- A</i> EERING B.I OP ENGINI	ENG.									
	CSC	111	FUNDAMENTALS OF PROGRAMMING WITH ENGINEERING APPLICATIONS	1.5	78%	B+	6	1.5		61%	117
	MATH	101	CALCULUS II	1.5	66%		3	1.5		73%	180
	MATH	122	LOGIC AND FOUNDATIONS	1.5	81%		7	1.5		73%	75
	CREDIT	IN 12.0	INTRODUCTORY PHYSICS I A = 5.04 (05MAY2022) IUNITS EMIC STANDING (05MAY2022)	1.5	75%	В	5	1.5		57%	129
SUMMER 202	22										
	EERING B.I OP ENGINI	ENG.									
	CSC	115	FUNDAMENTALS OF PROGRAMMING II	1.5	76%	В	5	1.5		74%	91
	CREDIT	IN 1.5	A = 5.00 (17AUG2022) UNITS EMIC STANDING (22AUG2022)								
WINTER 2022	2-2023										
SOFT	: Sep - Dec EERING B.: WARE EN OP ENGINI	S.ENG. GINEER									
(30)	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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SOFT	rm: Jan - A ERING B. WARE EN PP ENGINI	S.ENG. IGINEERI									
(00-0	CSC		INTRODUCTION TO COMPUTER ARCHITECTURE	1.5	63%	С	2	1.5		76%	127
	ENGR	120	DESIGN AND COMMUNICATION II	2.5	88%	Α	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 202											
SOFT	ession: Ma ERING B. WARE EN P ENGINI	S.ENG. IGINEERI									
0-00)	CSC	226	ALGORITHMS AND DATA STRUCTURES II	1.5	65%	C+	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%		9	1.5		83%	103
			A = 5.25 (18AUG2023)				-				
		TIN 6.0	,								
			EMIC STANDING (21AUG2023)								
WINTER 2023	-2024										
SOFT	Sep - Dec ERING B. WARE EN P ENGINI	S.ENG. IGINEERI	NG								
(30 0	ASTR	101	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%		0	0.0		70%	316
	CSC	370	DATABASE SYSTEMS	1.5	57%	D	1	1.5		66%	130
	ECE	260	CONTINUOUS-TIME SIGNALS AND	1.5	20%		0	0.0		67%	96
			SYSTEMS								

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SESSION	COURS	≀SE	DESCRIPTION	UNIT VALUE	GRADE		GRADE	AWARDED	NOTE	COMPARATIVE	
02001011	000.	.02	BESSAII TION				POINT	UNITS		MEAN	SIZE
Second Terr	m: Jan - A	pr 2024									
ENGINEE	ERING B.	S.ENG.									
SOFTV	VARE EN	GINEER	ING								
(CO-OI	P ENGIN	EERING)									
	CSC	305	INTRODUCTION TO COMPUTER	1.5	90%	A+	9	1.5		82%	108
			GRAPHICS								
	CSC	320	FOUNDATIONS OF COMPUTER SCIENCE	1.5	33%	Ν	0	0.0		72%	170
	ECE	363	COMMUNICATION NETWORKS	1.5	73%	В	5	1.5		81%	100
	SENG	371	SOFTWARE EVOLUTION	1.5	84%	A-	7	1.5		85%	81
	SESSIC	NAL GP	A = 3.13 (06MAY2024)								
	CREDIT	IN 7.5	UNITS								
	IN GOO	D ACAD	EMIC STANDING (06MAY2024)								
CUMULA <sup>-</sup>	TIVE GPA	A: 4.42	,								

#### SUMMER 2024

Summer Session: May - Aug 2024 ENGINEERING B.S.ENG. SOFTWARE ENGINEERING (CO-OP ENGINEERING)

FUNDAMENTALS OF CHEMISTRY FROM CHEM CONTINUING 101 1.5 ATOMS TO MATERIALS FOUNDATIONS OF COMPUTER SCIENCE CSC 320 CONTINUING 1.5 ECE 260 CONTINUOUS-TIME SIGNALS AND 1.5 CONTINUING

SYSTEMS

------ END OF TRANSCRIPT ------