# Arfaz Hossain

Victoria, British Columbia

March 28, 2024

WorkSafeBC

Division: Human Resource

Location: Richmond, British Columbia

Dear Hiring Manager:

I am excited to apply for the **Strategy and Consulting Co-op Placement** at WorkSafeBC. 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<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 *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 endeavors, 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 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 WorkSafeBC.

Most Sincerely,

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

Arrfaz Hussain

University of Victoria

# Arfaz Hossain

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#### 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

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

## Selected Collaborative Projects

#### Study Sprints Ongoing

 $Feb\ 2024-Present$ 

 $\red{ \red{ https://www.github.com/VikeLabs/Study-Sprints} } \\$ 

 $Victoria,\ BC$ 

- 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**

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

 ${\rm Dec}~2023$  -  ${\rm Present}$ 

Victoria, BC

- $\begin{tabular}{l} \textcircled{$h$ ttps://www.github.com/arfazhxss/next/tree/main/ecommerce-admin} \end{tabular}$
- Building an e-commerce management platform for administrators using Next.js, integrating Clerk and NextAuth.js for user authentication, Stripe for managing client payments and Shaden for components in user-interface
- Implementing a backend infrastructure with Prisma, PlanetScale, and MySQL for data storage and maintenance

#### 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

# 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/

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			
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First Term:											
	ERING B.I										
(00-0	P ENGINI 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 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
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	CSC	115	FUNDAMENTALS OF PROGRAMMING II	1.5	76%	В	5	1.5		74%	91
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WINTER 2022	-2023										
First Term:	•										
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(00-0	P ENGINE 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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SESSION	COURSE		DESCRIPTION	UNIT VALUE	GRADE	GRADE POINT	AWARDED UNITS	NOTE	COMPARATIVE MEAN SIZE	
	ERING B.	S.ENG. 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. VARE EN P ENGINI	S.ENG. 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 EMIC STANDING (21AUG2023)							
<b>WINTER 2023-</b>	-2024									
	ERING B.	S.ENG. 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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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			