### Arfaz Hossain

Victoria, British Columbia

April 4, 2024

Sharp Ideas in Mining Pty Ltd

Division: Human Resource

Location: Vancouver, British Columbia

Dear Hiring Manager:

I am excited to apply for the **Software Engineer - Co-op Placement** at Sharp Ideas in Mining. 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 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 Sharp Ideas in Mining.

Most Sincerely,

 $\bf Arfaz\ Hossain\ (He/Him)$ 

Software Engineering Student, University of Victoria

Arrfaz Hussain

### 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 Victoria, BC

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

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

Dec 2023 - Present

• https://www.github.com/arfazhxss/next/tree/main/ecommerce-admin Victoria, BC

• 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 Shadon 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

- $\label{eq:com/arfazhxss/Weather-Application} \end{center} \begin{tabular}{ll} \rat & \rat$
- 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

Victoria, BC

Engineering Student's Society (ESS)

• 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	COUR	SE	DESCRIPTION	UNIT VALUE	GRADE		GRADE POINT	AWARDED UNITS	NOTE	COMPARATIVE	
										MEAN	SIZE
		AC/	ADEMIC RECORD FOR UNDERGRADUATE S	TUDIES E	XCLUDIN	NG L	AW PR	OGRAMS			
WINTER 2021	-										
First Term:											
	ERING B.E										
(00-0	P ENGINE ENGR	110	DESIGN AND COMMUNICATION I	2.5	76%	R	5	2.5		79%	166
	ENGR	130	INTRODUCTION TO PROFESSIONAL	0.5	79%		6	0.5		87%	204
	LIVOIX	100	PRACTICE	0.0	1070	٠.	J	0.0		01 70	20-
	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	m: Jan - A	pr 2022									
	ERING B.E	•									
(CO-C	P ENGINE	ERING)									
	CSC	111	FUNDAMENTALS OF PROGRAMMING	1.5	78%	B+	6	1.5		61%	117
	MATII	101	WITH ENGINEERING APPLICATIONS	1 5	660/	C .	2	1.5		720/	100
	MATH MATH	101 122	CALCULUS II LOGIC AND FOUNDATIONS	1.5 1.5	66% 81%		3 7	1.5 1.5		73% 73%	180 75
	PHYS	110	INTRODUCTORY PHYSICS I	1.5	75%		, 5	1.5		73% 57%	129
			A = 5.04 (05MAY2022)	1.5	13/0	Ь	3	1.5		37 /0	128
		IN 12.0	,								
			EMIC STANDING (05MAY2022)								
SUMMER 202		D / (O/ (D)	- NII O O I / II 4 D II 4 O (00 NII 1 I 2022)								
Summer Se		ν - Διια 2	022								
	ERING B.	, ,	022								
	P ENGINE										
(	CSC	115	FUNDAMENTALS OF PROGRAMMING II	1.5	76%	В	5	1.5		74%	91
	SESSIO	NAL GPA	A = 5.00 (17AUG2022)								
	CREDIT	IN 1.5	UNITS								
	IN GOO	D ACADE	EMIC STANDING (22AUG2022)								
WINTER 2022	-2023										
First Term:	Sep - Dec	2022									
ENGINE	ERING B.S	S.ENG.									
	WARE EN		NG								
(CO-C	P ENGINE		ALCODITUME AND DATA CTRUCTURES	4.5	E00/	Ь	4	1 5		700/	400
	CSC ECON	225 180	ALGORITHMS AND DATA STRUCTURES I	1.5 1.5	53% 90%		1 9	1.5 1.5		73%	196
	CON	100	INTRODUCTION TO ECONOMICS AND FINANCIAL PROJECT EVALUATION	1.5	90%	ΑŦ	9	1.5		81%	150

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SESSION	COUR	RSE	DESCRIPTION	UNIT VALUE	GRADE	GRADE POINT	AWARDED UNITS	NOTE	COMPAR MEAN	RATIVE SIZE
		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									
		S.ENG. IGINEERI	NG							
,	ASTR	101	EXPLORING THE NIGHT SKY	1.5	DEF	0	0.0		N/	Ά
	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	ı: Jan - A	pr 2024								
ENGINEER	RING B.S	S.ENG.								
SOFTW	ARE EN	GINEERI	NG							
(CO-OP	<b>ENGINE</b>	ERING)								
	CSC	305	INTRODUCTION TO COMPUTER	1.5	5 CONTINUING					
			GRAPHICS							
	CSC	320	FOUNDATIONS OF COMPUTER SCIENCE	1.5	CONTINUIN	IG				
	ECE	363	COMMUNICATION NETWORKS	1.5	CONTINUIN	IG				
	SENG	371	SOFTWARE EVOLUTION	1.5	CONTINUIN	IG				

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