

August 31, 2024

## Dematic

Division: Global R&D Software Organization

Location: Waterloo, Ontario

Dear Hiring Manager:


I am writing to express my strong interest in the Software Developer Co-op at Dematic. 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.

Throughout my academic endeavours, I have had the chance to explore and learn about many important concepts in software engineering, such as object-oriented programming, software architecture design, agile methodologies and software testing. My academic and project experiences align well with the requirements of this position:

- **Full-Stack Development:** I've experience developing full-stack applications, working primarily with TypeScript, React and Python. During some projects, I had the chance to design the system, develop schemas for both relational and non-relational databases such as PostgreSQL and MongoDB.
- **Diverse Project Portfolio:** I've completed over 13 software development projects, including an iOS weather application in Swift, a 3D Rubik's Cube simulation using C++, and several web applications using React, JavaScript, and TypeScript.
- **Testing and Automation:** Throughout my projects, I have utilized build automation tools like Maven and Gradle, along with web automation tools such as Selenium, Puppeteer, and WebDriverIO. I have experience working with unit testing with frameworks such as JUnit, pytest, Mocha and have experience with API testing using Postman.
- **Collaboration and Development:** I have been an active member of the Engineering Students Society and VikeLabs, where I've mentored and worked with fellow engineering students, participated in hackathons and coding workshops.

I am currently available for a **12-month** work term and would be open to the possibility of participating in more than three consecutive terms. Thank you for considering my application. I look forward to the possibility of speaking with you further about this role.

Most Sincerely,



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

# Arfaz Hossain

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## EDUCATION

### University of Victoria

Bachelor of Engineering in Software Engineering

Victoria, BC

Sept. 2021 - Present

## TECHNICAL SKILLS

**Languages:** Java, Python, TypeScript, JavaScript, Objective-C (Swift), C++, HTML/CSS, R

**Frameworks and Libraries:** Node, Next.js, React, Express, Material, Shadcn, Tailwind CSS

**Databases:** MySQL, PostgreSQL, SQLite, MongoDB, Redis, DynamoDB, CloudSQL

**Developer Tools:** Visual Studio, IntelliJ, JUnit, Eclipse, Maven, Gradle, Git, Docker

## TECHNICAL PROJECTS

### Course Planner | *Next.js, React, TypeScript, PostgreSQL, Tailwind*

Feb 2024 - Present

[www.github.com/arfazhxss/course-planner](https://www.github.com/arfazhxss/course-planner)

Victoria, BC

- Developed a course planning tool using Next.js to help students plan courses and track degree progress
- Integrated PostgreSQL for database management of course data and user information
- Implemented drag-and-drop functionality in React with state functions to enhance user interactivity
- Designed the User Experience using TailwindCSS to create a seamless and intuitive user experience

### Automated Application System | *Bash, Python, LaTeX*

Dec 2023 - Present

[www.github.com/arfazhxss/app-sys](https://www.github.com/arfazhxss/app-sys)

Victoria, BC

- Automated and streamlined entire job application process optimizing workflow and data handling
- Utilized multithreading for simultaneous data extraction and processing tasks, reducing runtime by 60%
- Built command-line tools for data input, and batch file processing, reducing manual efforts by 90%
- Increased consistency by 70% by implementing proper data cleanup and extraction

### Jabref - Open Source Contributions | *Java, JUnit*

Dec 2023 - May 2024

[www.github.com/arfazhxss/jabref](https://www.github.com/arfazhxss/jabref)

Victoria, BC

- Developed 100+ unit tests to ensure end-to-end correctness of file lookup in JabRef's database
- Implemented 20+ caching tests to optimize JabRef's performance and memory management
- Implemented 30+ integration tests to verify correct interactions between multiple modules and classes
- Engineered end-to-end functional tests validating bibliography management workflows

### Ground Support System | *React, TypeScript, MongoDB, Figma*

Jul 2023 - Jan 2024

[www.github.com/UVicRocketry/Ground-Support](https://www.github.com/UVicRocketry/Ground-Support)

Victoria, BC

- Collaborated with 13 developers to create portable telemetry software for rocket performance analysis
- Developed front-end components using TypeScript and contributed to the final Figma designs
- Integrated live telemetry data from MongoDB database into MaterialUI tables for post-flight analysis
- Implemented data visualizations with MaterialUI tables and charts for engineering students

### Rubik's Cube (3D Simulation) | *C++*

Feb 2023 - June 2023

[www.github.com/arfazhxss/rubiks-cube-cpp](https://www.github.com/arfazhxss/rubiks-cube-cpp)

Victoria, BC

- Developed a 3D simulation with OpenGL, integrating GLSL for visuals and math operations
- Created intuitive keyboard controls for cube rotations using keys like L, J, I, K
- Enhanced user interaction with dynamic zoom via keyboard shortcuts

## EXPERIENCES

### Software Team Lead

Feb 2024 - Present

VikeLabs

Victoria, BC

- Collaborated with 5+ team leads to organize workshops for 100+ CS and software engineering students
- Collaborating with executives from 3+ student clubs to co-host tech events, boosting attendance by 25%
- Fostering partnerships with other student organizations, expanding resource-sharing opportunities

### Graphics Coordinator

Jan 2023 - Present

Engineering and Computer Science Students Society

Victoria, BC

- Created 40+ posters and social media campaigns for engineering events
- Volunteered at 20+ events, enhancing student engagement and participation
- Updated and maintained ECSS website and exam bank accessed by 600+ engineering students

## Various Positions: Grocery Clerk, Cashier and Deli Clerk

Apr 2022 - Sept 2022

*Save On Foods*

*Victoria, BC*

- Oversaw store operations with a team of 10-12 employees which ensured smooth daily workflow
- Handled customer inquiries while collaborated with 3 departments through effective communication channels
- Maintained inventory accuracy, reducing stock shortages by 7% through detailed record-keeping and rotation

## Customer Service Representative, Cashier

Sept 2021 - May 2022

*Tim Hortons*

*Victoria, BC*

- Served 150+ customers daily, ensuring friendly and efficient service
- Managed cash transactions with 100% accuracy while training new staff members
- Prepared and served coffee and food to company standards, ensuring consistent quality

## Data Analyst Intern

Jan 2021 - Aug 2021

*Moment Touch Properties Ltd.*

*Dhaka, Bangladesh*

- Analyzed real estate market data using Excel which improved accuracy of property valuations by 7%
- Developed Python scripts to automate data scraping and bash scripts for cleaning and analysis
- Compiled and presented data reports through automated Excel macros processes

## VOLUNTEERING EXPERIENCES

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### Mentor, Volunteer

January 2016 - March 2018

*University of Victoria Students Society*

*Victoria, BC*

- Mentored 5 first-year students, providing academic guidance and fostering a supportive community
- Volunteered 50+ hours to support and enhance the international student experience

### Rescue Volunteer

Aug 2019 - May 2021

*Bangladesh Animal Welfare Foundation, Obhoyaronno*

*Dhaka, Bangladesh*

- Advocated for responsible pet ownership through community outreach, creating 15-20 monthly posters
- Collaborated with teams of 5-7, including volunteers and veterinarians, rescuing 10-15 street animals
- Built and maintained strong relationships with local businesses to support animal welfare initiatives

### Magazine and Event Executive

June 2016 - May 2019

*Remians Language Club*

*Dhaka, Bangladesh*

- Led a team of 150+ members in creating and distributing annual magazines, enhancing club visibility
- Secured sponsorships from 10+ local businesses, raising funds to support club events and activities
- Utilized Adobe Creative Suite to design educational materials for community engagement

### Debater, Graphics Coordinator

January 2016 - March 2018

*Remians Debating Society*

*Dhaka, Bangladesh*

- Led a team of 5 to organize inter-school debate tournaments, attracting 100+ participants each event
- Collaborated with a team to organize over 15 debate events, ensuring smooth logistics

## REFERENCES

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### Le Hung Nguyen

*Ph.D. Candidate, Department of Electrical and  
Computer Engineering, University of Victoria*

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### Mohammad Ali Akber

*Software Development Engineer,  
Amazon Payment Platforms*

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## CERTIFICATIONS, HONORS AND AWARDS

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- **Recipient of University of Victorias International Entrance Scholarship** 2021 - 2022
- **International English Language Testing System (IELTS), Grade: 8.0/9.0** 2020