

Anfaal Mahbub

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Education

Bachelor of Science in Software Engineering

Expected Graduation: May 2026

University of Calgary, Schulich School of Engineering

Skills

Proficiencies: Java, Python, C/C++, SQL, JavaScript, SCADA, HMI

Software: Power Apps, Docker, Ansible, MySQL, React, Node.js, Git/GitHub, AWS, Junit, Selenium, JIRA

Experience

Computer Engineer Intern | SCADA, HMI, ICS

Sept 2024 – Sept 2025

ATCO Pipelines – SCADA & Cybersecurity

Edmonton, Alberta

- Recreated and redesigned 800+ schematics for transmission lines and facilities, applying American Petroleum Institute (API) standards to ensure compliance, safety, and long-term reliability
- **Upgraded 500+ existing schematics** to align with updated API standards, modernizing documentation and supporting ongoing infrastructure improvements
- **Cross-verified data for 1,000+ stations** using advanced Excel coding and automation, streamlining QA processes and enabling faster, more reliable decision-making
- Applied **version control (TortoiseHG)** to maintain consistency across engineering projects, ensuring traceability of all schematic and SCADA updates
- Supported a major **SCADA system upgrade**, implementing HMI display enhancements and database updates to improve operator workflows and real-time monitoring
- Automated workflows with **PowerShell scripting and Notepad++ macros**, reducing repetitive tasks and minimizing configuration errors

Back-end Software Engineer | Typescript, Docker, Git

Oct 2023 – Apr 2024

Tech Start UCalgary – ReThread

Calgary, Alberta

- Designed back-end architectures for a fashion education platform, supporting a **20% increase** in users
- Improved data presentation via analytical processing, **advancing user engagement by 10%**
- Partnered with 3 teams to deploy trend analysing algorithms, **boosting user retention by 15%**

Leadership Experience

Project Manager & Lead Software Engineer | JavaScript, MySQL, Node.js

Jan 2024 - Apr 2024

StudySync Platform

Calgary, Alberta

- **Directed 5 developers** to create an educational platform, directing the project from inception to rollout
- Optimized backend systems using Node.js and Express.js, streamlining server **response times by 25%**
- **Mentored 2 junior developers** and liaised with stakeholders to align project objectives with user needs

Projects

Money Moves - Empowering Intl. Students | React, Node.js, Design Patterns

Feb 2024 - Feb 2024

- Developed a financial advice tool for international students, **employing design patterns** for scalability
- Spearheaded backend development, ensuring data handling capabilities with up to **20% variability**
- Controlled the integration of backend and frontend components for optimal user experience

Airline Reservation System | Java, MySQL, Design Patterns, GUI

Nov 2023 - Dec 2023

- Constructed a scalable Flight Reservation System, lowering booking processing times by 35%
- Utilized Java for system development and MySQL for high-volume transaction handling

Noisy Boy - Mute the World | Python, SketchUp, Git

Nov 2023 - Nov 2023

- Innovated a noise cancellation product, incorporating precision frequency suppression via **Python**
- Modelled the hardware design to mitigate feedback loops by 10%
- Upheld sustainable manufacturing practices, minimalizing environmental **impact by 15%**

Veterinarian Schedule Builder | Java, MySQL, Git

Apr 2023 - Jun 2023

- Programmed a Java-based Scheduler **automating 80%** of routine tasks, markedly diminishing errors
- Enabled a collaborative environment using GitHub, shortening the **development cycle by 10%**