

Mohammad Shahriar Hossain

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EDUCATION

University of Alberta

Edmonton, AB

B.Sc. Computing Science (Specialization in Software Practice)

Expected Graduation: Apr 2026

Relevant Coursework:

- Predictive Business Analytics
- Machine Learning I
- Reinforcement Learning Specialization
- Search and Planning in Artificial Intelligence
- File and Database Management (SQL & MongoDB)
- Software Engineering Specialization
- Computer Architecture I
- Operations Management

SKILLS/EXPERTISE

Academic Expertise: Software Development, Data Analysis, Data Science, Machine Learning, Artificial Intelligence

Tools and Software: Office 365, Power BI, Tableau, SAP (ABAP, HANA), Linux, Android Studio, iOS, Git, GitHub, GitLab, Raspberry Pi, Figma, Lucidchart, Adobe Creative Cloud (Illustrator, Photoshop), Jupyter Notebook

Programming Languages: SQL, MongoDB, Python (Django, Flask, scikit-learn, tensorflow, numpy, pandas, matplotlib, seaborn, pyqt, tkinter), JavaScript (React.js, Next.js, Node.js, Tailwind CSS), TypeScript, C, C++, C#, Java, HTML, CSS, R (dplyr, tidyr, ggplot2, tensorflow, rpart, tidyverse, randomForest), Assembly (RARS RISC-V)

Cloud Platforms and DevOps: AWS, Azure, Google Cloud, Docker, Kubernetes, Ansible, Terraform, Jenkins, GitHub Actions, Travis CI

EXPERIENCE

Data Analytics Co-op

Jan 2025 – Present

Nutrien

Calgary, AB

- Build and test machine learning models in Python using AWS SageMaker, including time series forecasting to identify trends and predict injury and fatality risks.
- Work with Excel, Power Query, Power BI, and SQL to analyze safety and procurement data, build interactive dashboards, and support decision-making across fleet management and corporate operations.

Software Developer Co-op

May 2024 – Dec 2024

SensiImage Technologies Ltd.

Edmonton, AB

- Managed and maintained the frontend and backend of the company's web application using cloud computing and DevOps principles, including infrastructure maintenance. Performed data cleaning, analysis, visualization, and applied machine learning models for predictive analytics to support informed decision-making and improve product performance.
- Developed and optimized the Graphical User Interface for the display module while handling software and hardware troubleshooting to ensure seamless product functionality and user interaction.

PERSONAL PROJECTS

Edmonton Housing Data Analysis | SQL, Python, Power BI

[Link](#)

- Assists newcomers and international students in Edmonton in finding ideal housing through a dashboard with filters for price, room numbers, house size, and community.
- Utilized SQL and Python for data cleaning and analysis; employed Power BI for visualization.

Predictive Modeling and Analysis of Traffic Accidents | R (ggplot2, dplyr, rpart, tidyr, randomForest)

[Link](#)

- Predicts accident severity using variables such as weather conditions, road type, and time of day, enhancing road safety and traffic management.
- Employed R programming, utilizing predictive models like KNN, LDA, and Random Forest.

ACHIEVEMENTS & COMPETITIONS

1st Place – CMPUT 401 Hackathon: Job application tracker platform

Sep 2024

2nd Place – natHACKS (Hackathon) 2024: EEG-based EMDR therapy aid

Nov 2024

PCL x BTMC Case Competition: Interdisciplinary solution design

Oct 2024