

Education

University of Alberta

Bachelor of Science in Computer Science and Artificial Intelligence (SIP/Co-op)

Expected Graduation: May 2027

Edmonton, Alberta

Experience

INOVA Geophysical

Software Developer Intern

May 2025 – Present

Calgary, Alberta

- Automated processing of 500+ daily SQLite QC files into GeoPackages using C#/.NET 8, supporting HyperQ Analysis and QGIS workflows.
- Designed and deployed a global **Serial Allocation System** with **Azure** (SQL, App Services, Key Vault), enabling conflict-free assignment of 10,000+ serials per batch.
- Built a **React (TypeScript) + C#/.NET** web application used by 50+ global users to prevent duplicate part serials.
- Improved system reliability through real-time validation and increased unit-test coverage by 30%.
- Supported cross-site operational workflows using **SharePoint, Teams, and Outlook** across Calgary, Houston, and Edinburgh.

Remote Research FIRE Program, NUS

September 2024 – January 2025

AI/ML Research Intern

Singapore (Remote)

- Built a multimodal mental health assistant (text, audio, video) using OpenAI APIs; improved emotion detection by 20%.
- Applied transfer learning across modalities to increase robustness; collaborated with a global research cohort on experiments and deployment.
- Deployed a real-time support chatbot with inference-time safeguards and logging.

National University of Singapore (NUS) & AWS

May 2024 – July 2024

Data Analytics/ML Summer Internship

Singapore

- Led a team building a MobileNetV2 model reaching 95% accuracy for driver-behavior classification.
- Deployed via **AWS** (S3, EMR, Lambda, SageMaker); reduced fleet alert response times by 30%.
- Worked cross-functionally (4-person team) to deliver a Streamlit monitoring front end.

Projects

Sentio Mood Tracking App | Java, Android, Firebase

March 2025

- Led a team of 6 (Agile, 3 sprints) to deliver a mood app with 1,000+ events recorded.
- Real-time username validation reduced sign-up errors by 40%; Firebase Auth/Firestore supported 100+ profiles with offline sync.

Library Management System | Python, SQLite

February 2024

- Led a 3-person team implementing CRUD for 200+ daily transactions.
- SQL pagination cut search times by 30%; automated penalties removed 50+ monthly manual errors.

Skills

Languages: Python, Java, C, C++, C#, **TypeScript**, JavaScript, **HTML/CSS**, SQL, MongoDB

Frameworks/Libraries: **React**, .NET 8, TensorFlow, PyTorch, Flask, NumPy, Pandas, Matplotlib

Productivity: Excel, Word, PowerPoint, SharePoint, Teams, Outlook, OneDrive

Developer Tools & Cloud: Visual Studio, VS Code, Git, SVN, Docker, Linux, Jira, Azure, AWS (S3, EMR, Lambda, SageMaker), GCP

Testing: NUnit, Moq, FluentAssertions, JUnit

Relevant Coursework

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|--------------------------------|---------------------------|--------------------------|
| • Data Structures & Algorithms | • Machine Learning | • Visual Recognition |
| • Software Methodology | • Neural Networks | • Formal Systems & Logic |
| • Database Management | • Reinforcement Learning | |
| • Artificial Intelligence | • Search & Planning in AI | |

Extracurricular

Regional/National Badminton Player

2022 – Present

Canada, Saudi Arabia

- Ranked #87 in Alberta; formerly #2 in Saudi Arabia (Singles & Doubles).