

Amman Yusuf

[✉ ammanyusuf85@gmail.com](mailto:ammanyusuf85@gmail.com) [🔗 ammanyusuf.com](https://www.ammanyusuf.com) [👤 ammanyusuf](https://www.linkedin.com/in/amman-yusuf) [🔗 amman-yusuf](https://www.instagram.com/amman_yusuf/)

Education

The University of British Columbia, Computer Science

- GPA: 4.00

2024 – 2026

University of Calgary, Computer Science

- GPA: 3.98

2018 – 2023

Experience

University of British Columbia, Research Assistant

Sep 2025 - Present

Sept 2025 – present

6 months

- Research in privacy and safety with diffusion models.

University of British Columbia, Graduate Teaching Assistant

Jan 2025 - May 2025

Jan 2025 – May 2025

5 months

- Supported course instruction, grading, and student support.

EV.com, Fullstack Software Engineer

- Integrated retrieval-augmented generation with vector search in MongoDB for LLM projects.
- Led generated metadata tagging for vehicle listings to improve search relevance.
- Built ML-backed relevance ranking with LightGBM, improving results by 15%.
- Streamlined authentication flows in React and Next.js, increasing sign-ups by 10%.

2024 – 2025

1 year

Amazon Web Services, Software Engineer Intern

- Built a pipeline to gather and analyze PostgreSQL statistics.
- Maintained Kotlin Lambda code to extract 10 GB of stats on a CRON schedule.
- Worked in an Agile, TDD-oriented workflow using Jira and Git.

2022 – 2022

1 year

Oncology Outcomes, Data Science Intern

- Built web solutions in .NET integrated with R-based ML models for outcome prediction.
- Extracted 200k+ records from electronic health data for information extraction research.
- Improved ML analysis performance by 10x through system optimization.

2021 – 2023

2 years

Volunteer

University of Calgary Fencing Club, Outreach Coordinator

2023 – 2024

- Ran classes, refereed matches, and coached 1-on-1 fencing lessons.
- Organized tournaments, merchandise, and competition medals.
- Led social media efforts, growing membership from 7 to 60 students.
- Competed as a sabre fencer and helped with coaching and instruction.

Awards

NSERC Canada Graduate Scholarships Master's (CGS M)

2025

NSERC — \$27,000

NSERC Research Award

2023

NSERC — \$7,500

Dean's List Recipient

2018-2023

University of Calgary

President's Entrance Scholarship	2018
University of Calgary — \$5,000	
Louise McKinney Scholarship	2018
Government of Alberta — \$2,500	
Jason Lang Scholarship	2018-2020
Government of Alberta — \$1,000	
Viscount Bennet Scholarship	2018
Government of Alberta — \$1,000	

Publications

Training-Free Safe Denoisers for Safe Use of Diffusion Models

Mingyu Kim, Dongjun Kim, Amman Yusuf, Stefano Ermon, Mijung Park

arxiv.org/abs/2502.08011

Text analysis framework for identifying mutations among non-small cell lung cancer patients from laboratory data

A. Yusuf, D. J. Boyne, D. E. O'Sullivan, D. R. Brenner, W. Y. Cheung, I. Mirza, T. N. Jarada

Prevalence, treatment patterns, and outcomes of individuals with EGFR positive metastatic non-small cell lung cancer in a Canadian real-world setting

D. E. O'Sullivan, T. N. Jarada, A. Yusuf, L. X. Y. Hu, P. Gogna, D. R. Brenner, E. Abbie, J. B. Rose, K. Eaton, J. Elia-Pacitti, E. M. Ewara, A. Pabani, W. Y. Cheung, D. J. Boyne

The impact of population-based EGFR testing in non-squamous metastatic non-small cell lung cancer in Alberta, Canada

D. R. Brenner, D. E. O'Sullivan, T. N. Jarada, A. Yusuf, D. J. Boyne, C. A. Mather, A. Box, D. G. Morris, W. Y. Cheung, I. Mirza

Projects

Federated Learning for Computer Vision

Distributed learning pipeline for wheat head instance segmentation using a modified U-Net.

- Achieved IoU and Dice scores up to 95% with model-agnostic comparisons.
- Built data transformation and cleaning pipelines for diverse imagery.

Emotion in Motion

HRI study on perceived emotion from non-anthropomorphic robot motion.

- Programmed Sony Toio robots in JavaScript for participant studies.
- Analyzed motion patterns and proposed expressive strategies.

Popin

Student event discovery app deployed to iOS.

- Managed React Native app infrastructure and performance.
- Incorporated user feedback to improve retention and UX.

Canadian Cancer Society Visualization

Data visualization suite exploring cancer statistics in Canada.

- Built 22 interactive visualizations with D3 and Python.
- Applied PCA and regression to cleaned datasets.

WaitLess Queueing App Prototype

UX/UI prototype for university advising queues.

- Designed a high-fidelity interface with Adobe XD and Figma.
- Conducted heuristic evaluation and user research.

Skills

Technical

Interests

Research

Training

- CIFAR Deep Learning + Reinforcement Learning (DLRL) Summer School (Amii): focused on reinforcement learning, attended talks by Adam White, Marlos Machado, Martha White, and Richard Sutton, explored KAN networks for RL tasks, and built connections in the international deep learning community.