### Azal Ahmad Khan

### Education

University of Minnesota, Twin-Cities September 2024 – Present

Ph.D., Computer Science and Engineering (GPA: 3.9/4.0)

> Advisor: Dr. Ali Anwar

> Amazon ML Systems Fellow (2025) & GAGE Fellow (2024)

Indian Institute of Technology (IIT), Guwahati

November 2020 - May 2024

B.Tech., Chemical Science and Technology

## Research Experience

University of Minnesota September 2024 – Present Advisor: Dr. Ali Anwar Graduate Assistant University of Minnesota January 2022 - May 2024 Advisor: Dr. Ali Anwar Undergraduate Research Intern University of New South Wales January 2022 – December 2023 Undergraduate Research Intern Advisor: Dr. Rohitash Chandra

### **Publications**

Under Azal Ahmad Khan\*, Michael Andrev\*, Muhammad Ali Murtaza, Sergio Aguilera, Rui Zhang,

Review Jie Ding, Seth Hutchison, Ali Anwar. Safety Aware Task Planning via Large Language Models in Robotics. Under Review.

Azal Ahmad Khan\*, Ahmad Faraz Khan\*, Anas Mohamed, Haider Ali, Suchithra Moolinti, Sabaat arXiv Haroon, Usman Tahir, Mattia Fazzini, Ali R. Butt, Ali Anwar. LADs: Leveraging LLMs for AI-Driven DevOps. Under Review.

Under Xinran Wang, Jin Du, Azal Ahmad Khan, Qi Le, Enmao Diao, Jiawei Zhou, Jie Ding, Ali Anwar.

Review Multi-Dimensional Quantile Alignment for Scalable Oversight. Under Review.

IPDPS '25 Ahmad Faraz Khan, Xinran Wang, Qi Le, Zain ul Abdeen, Azal Ahmad Khan, Haider Ali, Ming Jin, Jie Ding, Ali Butt, Ali Anwar. PI-FL: Personalized and incentivized federated learning. In Proceedings of the 39th IEEE International Parallel & Distributed Processing Symposium.

EuroSys '24 Ahmad Faraz Khan, Azal Ahmad Khan, Ahmed M Abdelmoniem, Samuel Fountain, Ali Butt, Ali Anwar. FLOAT: Federated Learning Optimizations with Automated Tuning. In Proceedings of the Nineteenth European Conference on Computer Systems. (Acceptance Rate: 16%).

Azal Ahmad Khan, Xinran Wang, Ahmad Faraz Khan, Debanga Raj Neog, and Ali Anwar. Direct Under

Review Preference Optimization for Prompt Engineering in Text-to-Image Synthesis. Under Review.

BigData '24 Azal Ahmad Khan, Ahmad Faraz Khan, Haider Ali, Ali Anwar. Personalized Federated Learning Techniques: Empirical Analysis. In IEEE International Conference on Big Data 2024 (Short Paper).

BigData '24 Azal Ahmad Khan, Sayan Alam, Xinran Wang, Ahmad Faraz Khan, Debanga Raj Neog, and Ali Anwar. Mitigating Sycophancy in Large Language Models via Direct Preference Optimization. In IEEE International Conference on Big Data 2024 (Short Paper).

Elsevier Azal Ahmad Khan, Omkar Chaudhari, Rohitash Chandra. A review of ensemble learning and data augmentation models for class imbalanced problems: combination, implementation and evaluation. Expert Systems with Applications, Volume 244, 122778.

Azal Ahmad Khan, Salman Hussain, Rohitash Chandra. A Quantum-Inspired Predator-Prey Algorithm for Real-Parameter Optimization. Algorithms 2024, 17(1), 33.

# Awards & Grants

2025 Recipient of Amazon Machine Learning System Fellowship.

2024 Recipient of UMN GAGE Fellowship from the Department of CSE, UMN.

2024 Received a travel grant to attend Google Research Week at Google Research, Bangalore.

Highly Commended Entry (Top 10%) at Global Undergraduate Research Award 2024. 2024