Azal Ahmad Khan

■ khan1069@umn.edu ② azalahmadkhan.github.io Google Scholar +1(763)485-1561

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

B.Tech., Chemical Science and Technology

November 2020 - May 2024

Research Experience

University of MinnesotaSeptember 2024 – PresentGraduate AssistantAdvisor: Dr. Ali AnwarUniversity of MinnesotaJanuary 2022 – May 2024Undergraduate Research InternAdvisor: Dr. Ali AnwarUniversity of New South WalesJanuary 2022 – December 2023Undergraduate Research InternAdvisor: Dr. Rohitash Chandra

Publications

arXiv Azal Ahmad Khan*, Michael Andrev*, Muhammad Ali Murtaza, Sergio Aguilera, Rui Zhang, Jie Ding, Seth Hutchinson, Ali Anwar. Safety Aware Task Planning via Large Language Models in Robotics. Under Review.

arXiv Azal Ahmad Khan*, Ahmad Faraz Khan*, Anas Mohamed, Haider Ali, Suchithra Moolinti, Sabaat 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%*).

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

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.

MDPI 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.

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

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