ALI NAQVI

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EDUCATION

McMaster University — Hamilton, CA
Master of Science — **Expected Aug 2025**
- ***Relevant Coursework***: Evolutionary Computation, Neural Networks with Graphs

University of Windsor — Windsor, CA
Bachelor of Computer Science with Distinction — **June 2023**
- Specialization in Artificial Intelligence and Minor in Mathematics
- ***Awards***: LEAD Gold Medallion Recipient
- ***Relevant Coursework***: Neural Network and Deep Learning, Design and Analysis of Algorithms, Linear Algebra

EXPERIENCE

McMaster University, *Graduate Teaching Assistant* — **2023 - Present**
- **Courses**: Signals and Systems, Concurrent Systems, Computer Graphics.
- Led weekly tutorial sessions and managed lab activities for courses, each with an enrollment of **over 200 students.**
- Assisted in marking and holding office hours.

Glendor Inc, *ML Research Intern* — **2023**
- Conducted research on PDF processing and analyzed sensitive medical data using various techniques.
- Successfully implemented various techniques to extract and analyze important data from PDFs, leading to more efficient data processing.
- Evaluated BERT deidentification models on medical data, including the Stanford deidentification base model and models trained on the i2B2 dataset.

University of Windsor, *Teaching Assistant* — **2022 - 2023**
- **Courses**: Operating Systems, Key Concepts in Computer Science, Programming for Beginners, Social Media & Mobile Tech.
- Responsible for lab instruction, marking, and holding office hours for **over 100 students.**

PUBLICATIONS

- Naqvi, A., & Kelly, S. (2024). *Towards Evolving Creative Algorithms: Musical Time Series Forecasting with Tangled Program Graphs*. ALIFE.
- Djavaherpour, T., Naqvi, A., et al. (2024). *Optimizing Memory Strategies for Indexed Memory Efficiency in Tangled Program Graphs*. ECTA.
- Kelly, S., Naqvi, A., et al. (2024). *Evolving Many Models*. GPTP XII.

PROJECTS

Sequential Recommendation System — **September 2022 – March 2023**
- Modelled a sequential dynamic movie recommendation system using Deep Reinforcement learning.
- System allows multiple users and gives users new recommendations based on their selections.
- Created using **Python, JavaScript, TensorFlow, Flask, ReactJS**

Google Landmark Analysis — **November 2022 – December 2022**
- Designed a Shifted Window Transformer model to tackle the Google Landmark data consisting of over two hundred thousand distinct location classes used for sorting five million distinct images.
- Compared and researched top submissions where factors such as sub-center ArcFace margin loss were studied.
- Created using **Python, TensorFlow, NumPy, Pandas**

Comparative Analysis of Convolutional Neural Networks — **September 2022 – October 2022**
- Designed and implemented a CNN architecture on the MNIST dataset using TensorFlow and NumPy.
- Achieved an accuracy of **99.45%** on the dataset.

SKILLS

Programming: Python, Java, JavaScript, HTML/CSS, C, SCSS, SQL
Technologies: ReactJS, Linux, Git, Bootstrap
Machine Learning: Scikit-learn library, TensorFlow, Pandas, NumPy