Muhammad Abdullah Motasim

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Experience

University of Toronto
May 2023 – August 2023

Faculty of Medicine - Student Interviewer
Toronto, ON

- Collaborated with the Human Biology faculty to enhance and enrich the student learning experience.
- Performed 12 interviews with graduate students to gather feedback on departmental experiences, evaluating these interviews to identify opportunities for improvement, and presenting these findings to professors in a professional setting.
- Developed strong skills in oral/written **communication**, qualitative analysis, and public speaking.

Chestnut Residence Faculty
January 2023 – April 2023

Engineering Team Leader
Toronto, ON

- Collaborated with a team of 5 engineering students to redesign a social study space within a student residence.
- Worked as team leader to ensure client needs and deadlines were satisfied. Designed a robust solution that utilized 20% of previously unclaimed space while cutting the original budget by $24 000.
- Developed skills in team management techniques, client relations, and leadership.

McMaster University
November 2020 – February 2021

Research Assistant
Hamilton, ON

- Worked within the McMaster University medical department to collect, analyze, and present data on the autonomic nervous system.
- Duties included collecting and analyzing data from daily tests and performing weekly check-ins with the professor to update on progress.
- Utilized software such as MATLAB and Word to perform data analysis and present findings in a mock research paper.
- Developed skills in data analysis/collection, MATLAB, and technical writing.

Projects

Statistical Analysis Paper | *Statistical Analysis, Bayesian Inference, R*
April 2024 – June 2024

- Collaborated within a team of 5 for a final project in my Methods of Data Analysis course, developing a multiple linear regression model to predict NBA player salaries based on game statistics.
- Final model achieved an R-squared value of 0.5628, explaining 56% of salary variation using selected performance metrics.
- Developed skills in statistical modeling, data analysis, and R

BOLT - Geographic Information System | *C/C++, GTK, Glade*
January 2024 – April 2024

- Collaborated with a team of two engineering students to develop a graphical system similar to Google Maps for displaying electric vehicle charger locations.
- The project was crafted using C/C++ and the OpenStreetMap API, with Git handling version control. We also implemented algorithms like Dijkstra and A* to streamline path finding, along with data structures such as Tries and sorted maps to efficiently manage our data.
- Developed skills in writing industry-grade, maintainable code, utilizing Git, and implementing advanced algorithms and data structures.

AI - Image Colourizer | *Python, Pytorch, Tensor Flow, NumPy, Jupyter*
May 2023 – August 2023

- Collaborated within a team of 4 for a project in my Applied Fundamentals of Deep Learning course, creating an AI model to add color to grayscale images, aiding in the restoration of historical images.
- Leveraged a Generative Adversarial Network (GAN) architecture, achieving a network accuracy of 94% and a discriminator accuracy of 86%.
- Developed skills in machine learning algorithms/framework, utilizing PyTorch/TensorFlow, and NumPy/Pandas.

Education

University of Toronto
September 2022 – May 2026

Bachelor of Engineering in Computer/Electrical Engineering + PEY
Toronto, ON

Minor in Artificial Intelligence, Engineering Business, and Statistics