Muhammad Abdullah Motasim

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Key Competencies

- C/C++
- Python
- PyTorch/TensorFlow
- Git/GitHub
- Communication
- Teamwork
- Client Relations
- MS Office

Education

University of Toronto **Sep. 2022 – May 2027**
Bachelor of Engineering in Computer/Electrical Engineering *Toronto, ON*

Minor in Artificial Intelligence and Engineering Business

Work 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

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

- Collaborating with a team of two engineering students, we developed a graphical system akin to Google Maps for showcasing the locations of electric vehicle chargers.
- 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.

Image Colourizer | *Python, Pytorch, Tensor Flow, NumPy, Pandas* **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/AI development, utilizing **PyTorch/TensorFlow**, and NumPy/Pandas.

Hackathons | *C/C++, Python, Arduino, Circuit Design* **September 2022 – Present**

- Participated in several hackathons including the Miro-Bot Coding Contest, UofT Capture the Flag, MakeUofT, and UTRA hacks.
- Acquired teamwork skills by collaboratively setting and achieving goals within strict time constraints, while fostering healthy competition among peers.
- Developed skills in problem-solving, thinking analytically, cryptography, wiring, and software/hardware development.