Muhammad Saad Iqbal

905-767-5786 | msi.6ix@gmail.com | linkedin.com/in/msaadiqbal | github.com/MSaad416 | Kingston, ON

Education

Queen's University Kingston, ON

Bachelor of Applied Sciences in Computer Engineering *Sep 2021 – May 2025*

Coursework: Data Structures & Algorithm, Linear Algebra, Calculus 1 & 2, Digital Systems, Electric Circuits

Activities: Algorithmic Trading Team (Quant Developer), Queen's Tech and Media Association, Jiu Jitsu

Experience

Queen's Fuel Cell Team Jan 2022 – May 2022

Software Developer - Analytical System *Kingston, ON*

- Developed a micro-controller based system to process and export velocity, acceleration, other related data to an external storage device.
- Worked as an embedded software engineer to implement data projection to an LCD using the LiquidCrystal Library and achieved data collection within an error range of 5% using the Arduino platform.

Durham Regional Police Service Nov 2020 – Mar 2021

Intern - Youth in Policing *Remote*

- Gained valuable soft skills including leadership and teamwork by participating in training programs and different community focused initiatives such as fundraising.

Projects

Limited Stock Status Tracker | *Python*, *Flask*, *Scrapy*, *React*, *MongoDB*

- A web application to check for stocks of limited stock products such as graphic cards.
- Developed a full-stack web application using Python with Flask serving a REST API with React as the frontend. Implemented web scraping using the framework Scrapy, and historical data filtering using database queries.

Mental Health Chat Bot | *Python*, *JavaScript*, *TensorFlow*, *NLTK*, *Keras*, *React*, *Git*, *Figma*

- Developed a mental health chat bot for people needing a relaxing conversation, at UofTHacks.
- Implemented language processing using NLTK. Developed a deep learning model in TensorFlow using Keras for predictions. Evaluated accuracy of expected responses to relevant inquiries to be $\approx$ % 70.

A* Path-Finding Visualization | *C++*, *SDL2*

- Developed a path-finding visualization to implement various algorithms including A* to solve a maze.
- GUI created with SDL 2 APIs to implement visual graphical animations through hardware rendering.

Minesweeper in Terminal | *C*

- Designed and created a terminal version of the Minesweeper game using C.
- Implemented various programming concepts to successfully process player movement, boundary checking and other functionalities such as flagging.

Parcel Packaging Center Emulation GUI | *Java*, *JFrame*, *Eclipse*

- A game-like GUI to simulate the process of parcel processing inside a post office.
- Implemented object oriented principles (inheritance, encapsulation, polymorphism), to interact with visual elements and implement animations. Used Selenium testing to clear any bugs.

Technical Skills

Languages: C/C++, Java, Python, JavaScript, HTML, CSS, Bash

Technologies: React, Node.js, Flask, Django, MongoDB, Git, Linux/Unix, Figma