Mohammad Mahfooz

(416)-993-8800 | mahfoozm@my.yorku.ca | linkedin.com/in/mohammadmahfooz/ | github.com/mahfoozm/ | mohammadmahfooz.engineer/

EDUCATION

York University, Lassonde School of Engineering Expected Jun. 2025
Spec. Hons. Bachelor of Engineering, Software Engineering *Toronto, ON*
Relevant Courses: Data Structures, Object-Oriented Programming, Computer Organization
Overall GPA: 3.8/4.0

EXPERIENCE

Software Engineer Intern Oct 2022 - Jan 2023
YURide *Toronto, ON*
- Lead development of the iOS app from the ground up, with a limited amount of team resources.
- Built the front-end of the app using **Interface Builder** and **SwiftUI**, the app back-end using **Swift**, and the back-end using **JavaScript**, **Node.js**, and a NoSQL database (**MongoDB**).

PROJECTS

Air Quality Monitor | *Java, C++, Firmata, JavaFX, jSerialComm* April 2022
- Developed an air quality monitor that displays current CO2 levels and temperature data using **Java** and **Firmata** to communicate with an Arduino board.
- Utilized **JavaFX** to display a GUI that shows real time CO2 data on a chart and graph.
- Implemented serial communication between **Java** and the Arduino board by utilizing **jSerialComm**, allowing users to operate a ventilation system in the GUI.

Plant Watering System | *Java, Firmata, JUnit Testing* December 2021
- Developed an automatic plant watering system using **Java** and **Firmata** that ensures a plants soil is at a constant level of moisture.
- Utilized **Firmata** to allow **Java** program to communicate with the Arduino board and its sensors.
- Implemented **JUnit Testing** to ensure the program was working as desired.

VOLUNTEER EXPERIENCE

Team Lead Sep. 2019 – Jun. 2021
FIRST Robotics #6977 *Toronto, ON*
- Promoted to team lead of the FIRST robotics team after success on VEX robotics team.
- Oversaw development of the robot for the **Infinite Recharge** competition, using **C++**.
- Increased team size by 15+ members by spreading awareness of the team around the school.

Team Member Sep. 2017 – Jun. 2019
VEX Robotics #6977 *Toronto, ON*
- Assisted development team in the 2018-19 season using **C**.
- Assessed and troubleshooted bugs before uploading to robot.
- Lead the build team for robot #2 for the 2018-19 season.
- Lead team to provincial semi-finals by developing a new strategy to help compensate for a low budget.

COMMUNITY AND LEADERSHIP

Peer Tutor Dec. 2020 – Jun. 2021
Emery Collegiate Institute *Toronto, ON*
- Assisted Grade 9 students with mathematics homework for three hours a week.
- Assisted Grade 10 and 11 students with computer science classes for three hours a week.

TECHNICAL SKILLS

Languages: Java, Swift, JavaScript, TypeScript, Python, C, C++, SQL, R, CSS, MATLAB
Tools and Frameworks: Node.js, PostgreSQL, MongoDB, React, Docker, Selenium, JUnit, Git, Figma, VS Code