

Mohammad Mahfooz

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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

Portfolio Site | *TypeScript, React, Next.js, CSS, Node.js*

December 2022

- Developed a portfolio website using **TypeScript** and **Node.js** to showcase skills and projects.
- Utilized the **React** library and the **Next.js** framework to build the website.
- Implemented Styled Components (**CSS**) to style the website.

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 9-11 students with Math/CS homework for three hours a week.

TECHNICAL SKILLS

Languages: Java, Swift, JavaScript, TypeScript, Python, C, C++, SQL, R, CSS, MATLAB

Tools and Frameworks: Node.js, Next.js, PostgreSQL, MongoDB, React, Docker, Selenium, JUnit, Git, VS Code