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 Coursework:** Data Structures, Object-Oriented Programming, Computer Organization
- **Overall GPA:** 3.8/4.0

Experience

Software Engineer Intern   Oct. 2022 - Jan. 2023

YURide   *Toronto, ON*

- Implemented the app front-end using **Interface Builder** and **SwiftUI**, creating an intuitive user interface. Utilized advanced features such as custom gestures and animations to enhance the overall user experience.
- Developed the app back-end using **Swift**, implementing custom data models and network services and using **Core Data** for persistent storage..
- Built the back-end using **JavaScript**, **Node.js**, and **MongoDB**, creating custom **RESTful** APIs for communication with the front-end. Used **Node.js** for a scalable server-side infrastructure and employed **MongoDB** to efficiently store and retrieve large volumes of data..
- Utilized **Git** and **GitHub** to manage version control and collaborate with team members on code changes.

Projects

YorkU RMP Extension | *JavaScript, HTML, GraphQL, Node.js*   January 2023

- Developed a browser extension using **JavaScript** and **Node.js** to grab a professors info (difficulty, rating, etc.) from RateMyProfessors and display it on the YorkU course portal.
- Utilized **HTML** knowledge to scrape a course page and insert RateMyProfessors information next to the corresponding professors name.
- Implemented the **GraphQL-Request** library to pull professor data from the RateMyProfessors **GraphQL** API.

CoverGPT | *Python, TKinter, LaTeX, ChatGPT*   January 2023

- Developed an application that uses **AI** to generate personalized cover letters for job applications.
- Utilized **Python** and **ChatGPT** to generate a cover letter, which is tailored to the specific company and job position.
- Implemented **TKinter** to design a user-friendly interface, and **LaTeX** to format and compile the cover letter into a PDF.

Portfolio Site | *TypeScript, React, Next.js, CSS, Node.js*   December 2022

- Developed a portfolio website using **TypeScript** and **Node.js** to showcase my skills and projects.
- Utilized **React** for the UI components and **Next.js** as the framework, allowing for a dynamic and efficient user experience.
- Implemented Styled Components **(CSS)** to style the website, allowing for easy and modular styling, resulting in a sleek, professional look and feel.

Air Quality Monitor | *Java, C++, Firmata, JavaFX, jSerialComm*   April 2022

- Developed an air quality monitor that displays current CO_2 levels and temperature data using **Java**, **C++**, and **Firmata** to communicate with an Arduino board.
- Utilized **JavaFX** to display a GUI that shows real time CO_2 data on a chart and graph.
- Implemented **jSerialComm** for seamless communication between the Java-based GUI and the Arduino board, enabling control of a ventilation system from the interface.

Volunteer Experience

Team Lead   Sep. 2017 – Jun. 2021

VEX/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/C++**.
- Lead team to provincial semi-finals by developing strategy to help compensate for a low budget.

Technical Skills

Languages: Java, Swift, JavaScript, TypeScript, Python, C, C++, Bash, SQL, R, HTML, CSS, MATLAB
Tools and Frameworks: Node.js, Next.js, MySQL, MongoDB, GraphQL, React, Docker, Selenium, JUnit, Git