Aiman **Hussaini**

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Education

Bachelor of Engineering, Computer Engineering

Expected Graduation: April 2022

Ryerson University, Toronto

- *Relevant Courses*: Algorithms and Data Structures | Object Oriented Analysis and Design | Digital Systems
- *Awards*: Dean's List Recipient (2019 - 2020)

Projects

Mars Rover

With Ryerson Rams Robotics

Python, JavaScript, Linux, Arduino

September 2019 - Present

- Researched and developed autonomous path-finding algorithms in Python to enable self driving and navigation functions
- Designed and deployed real-time overhead mapping and simulated radiation visualization using sensor data in JavaScript
- Integrated camera tag detection software with intelligent driving system to sequentially seek and analyze location markers

Note Taking App

Dart (Flutter), SQL

In Progress

- Developed a note taking application using the Flutter SDK and SQLite for database management
- Created a robust backend for various types of customizable notes using Object Oriented Programming in Dart
- Currently researching cloud sync solutions using Firebase and consistently improving existing features

Portfolio Website

JavaScript (React), HTML, CSS (Bootstrap)

September 2020

- Created a responsive website to showcase my previous and current projects using Bootstrap and React
- Generated custom JavaScript components to display information and dynamically adjust to different screen sizes
- Installed and implemented various *npm* packages to improve animations and backend e-mail delivery API

Extracurriculars and Achievements

Ryerson Rams Robotics

Autonomous Systems and GPS Team Lead

Present

- Supervised a team of 10+ members focused on developing autonomous rover functions and GPS tracking
- Delegated tasks to different team members and guided them in order to meet stringent criteria
- Collaborated with other team leaders to connect autonomous functions with Base Station GUI and obstacle detection

IEEE Ryerson Electronics Chapter

Member

September 2018 - April 2019

- Cooperated with mentors and other members to conceptualize and complete two major projects
- Designed PCB Schematics for an Audio Amplifier in Eagle CAD, using various ICs and circuit components to increase signal gain and reduce output noise
- Executed and Implemented a Home Automation System with an Arduino microcontroller, sensors and SPI, I2C and MQTT protocols using the Cayenne IoT framework

Skills

Programming Languages: *Java, C, Python, Dart (Flutter), JavaScript (React), Arduino, VHDL*

CAD and Design: *Eagle, Quartus II, Multisim*

Others: *Linux, HTML, CSS, Microsoft Word, PowerPoint, Excel*