Tamim Rahman

Toronto, Ontario | 437-775-0059 | Portfolio | t10rahman@ryerson.ca

Summary

A second-year computer engineering student with 6+ months of experience in software development and research. Highly skilled in creating full-stack web/mobile applications using python, javascript, and Java.

Education

Computer Engineering (B. Eng) - *Specialization in Software Engineering* Sep 2019 - May 2023

Ryerson University
GPA: 3.8 / 4.0

Experience

Software Developer Intern Toronto, ON Sep 2020 - Present

Cybersecurity Research Lab (CRL)

- Developed a prototype web application using The MVC framework **Sails.js** with **Vue.js** and MongoDB to show investors the potential of the CRL blockchain network in preventing fraud in the real estate industry and beyond.

Research Assistant – Cryptography Toronto, ON May 2020 - Aug 2020

Ryerson University - Department of Computer Science

- Created an implementation of SIKE (post-quantum cryptography) for AVR microcontrollers using **Rust** and the relevant concepts of abstract algebra to decrease the time needed for cryptographic key-exchanges.
- Developed a **Rust bignum library** which allowed developers to store, perform basic arithmetic, and modular reduction on 400+ bit numbers on 8-bit architecture with significantly lower overhead.
- Researched technical research journals/documentation to adapt and modify the established optimizations of SIKE.

Leadership/Volunteer Experience

Lead Developer (Executive) Toronto, ON Sep 2020 - Present

Ryerson Electrical/Computer Engineering Student Society

- Developed a custom discord bot using **python** using to authenticate and automate user roles/permissions for 800+ active users on the union's official server for online events/enrichment.
- Created a notification system using **python** to notify students about events/workshops based on their interests.

Controls Developer Toronto, ON Sep 2019 - Aug 2020

Ryerson Rams Robotics (R3)

- Developed a **python heat map** to visualize radiation data for the Mars rover, resulting in a significant decrease in decision making time for operators in the Canadian International Rover Competition.
- Created a **python** app to simulate incoming radiation data coming from the rover's sensors leading to more robust testing of the controls systems and an expected decrease in AI development and training time.

Featured Projects

Computer Vision aided Contactless Delivery, *Github* | *Demo* 2020

A **python** application that implements features of OpenCV and the Google Vision API to detect when a delivery has been made to a household and notifies the user via email, allowing for truly contactless and efficient deliveries.

Android - Pokédex, *Github* | *Demo* 2020

Applied aspects of android development using **Java** to create an android app that allows users to search up the type, id, description etc. of the corresponding pokémon. The app has support for all generations and variations of pokémon.

More projects: *Github Portfolio*

Certifications

Cisco Certified Network Associate (CCNA) Aug 2019 - Feb 2023

Certifies the ability to build and deploy networks that are reliable, secure, and scalable.
Earned by displaying in-depth knowledge of networking protocols and best practises.