Sharjil Mohsin

📞 (647) 774-2480 | ✉ mohsis2@mcmaster.ca | 🌐 sharjilm.github.io | ⦿ sharjilm | in sharjil-mohsin

Education

McMaster University *Hamilton, ON*

B.Eng.Mgmt in Software Engineering and Management, GPA: 3.4/4.0 *Sept. 2017 - PRESENT*

- **Expected Graduation Date**: May 2023
- **Relevant Courses**: Data Structures and Algorithms, Software Design and Development, Software Testing, Databases

Work Experience

IBM *Markham, ON*

Software Engineer Intern *Jan. 2022 - Aug. 2022*

- Replaced old **SOAP APIs** with newer **REST APIs** in a support tool for Cognos Analytics, **increasing efficiency** and **reducing bandwidth usage**.
- Optimized performance of application through integration of new **cryptography APIs**, while leveraging **automated** testing frameworks.
- **Tools used**: Java, JavaScript, React.js, Redux, VSCode, Eclipse, Git, GitHub, Jira, JUnit, Apache Maven, Jenkins, SonarQube

Royal Bank of Canada (RBC) *Toronto, ON*

Software Developer Intern *Sept. 2021 - Dec. 2021*

- Improved **Android 12L** support for RBC's **primary** mobile app, impacting **2 million+** users.
- Implemented feature that allows users to access anything app-related from **Google Assistant**, and performed **unit testing** on this feature.
- **Tools used**: Java, Android Studio, Git, GitHub, Jira, JUnit, Jenkins

McMaster University - Faculty of Engineering *Hamilton, ON*

Teaching Assistant *Sept. 2020 - PRESENT*

- Ensured **50+** 1st year engineering students understood and implemented concepts on programming, engineering design, engineering professionalism, and material science through related hands-on engineering projects using **Raspberry Pi**, **Python**, and **AutoCAD**.
- **Facilitated** group discussion, **motivated** students to attain personal growth, and **encouraged** skills development.

Extracurricular

McMaster Software Engineering Society *Hamilton, ON*

Vice President of Academic & Professional Development *Jun. 2021 - PRESENT*

- **Creating** and **organizing** conferences, workshops, and networking events for **500+** software engineering and computer science students.
- **Coordinating** an annual career fair that connects software engineering, mechatronics engineering, computer science, and Bachelor of Technology students with top employers from the Hamilton region.

McMaster Artificial Intelligence Society *Hamilton, ON*

General Member *Sept. 2018 - Apr. 2021*

- Learned skills required to build an AI project, as well as discussed the impact and the ethical applications of artificial intelligence.
- Implemented machine learning algorithms using **Python** and using tools like **NumPy**, **Matplotlib**, **scikit-learn**, and **TensorFlow**.

Projects

Image Repository

- Developed a full-stack web application that allows users to upload, archive, download, and delete images from a secure **AWS S3 bucket**.
- Designed the front-end of the site using **HTML**, **CSS**, and **Bootstrap** and the back-end of the site using **Python** and **Django**.
- Implemented a feature that allows users to include tags to aid with image search as well as provided 'suggested tags' feature that uses object detection using machine learning through **Google Cloud's Vision API** and **TensorFlow**.
- Deployed using **Heroku** and utilized **PostgreSQL** for data storage and scalability.

COVID-19 Pandemic Tracker App

- Developed a mobile application that retrieves worldwide COVID-19 data and visualizes the number of cases per country and overall.
- Created using **REST API** and **Volley Library**; built in **Java** using **Android Studio**.

Pac-Man Desktop Edition

- Designed an interactive **JavaScript** app using an **object-oriented** approach in an **agile environment** to create a desktop implementation of the original Pac-Man arcade game.
- Performed **automated testing** using **Mocha** to ensure high software quality and stability.
- Maintained version control of program using **Git**.
- Authored comprehensive **design documents** and **system requirements specifications** complete with UML diagrams.

Genetic Image Construction

- Developed an application to generate identical images from pixels using the genetic algorithm; **achieved 87% accuracy**.
- Implemented an exponentially decaying adaptive learning rate to **decrease average run time by 12%**.

Skills

Languages	Java, Python, C, C++, C#, Go, JavaScript, HTML/CSS, Verilog, Bash, SQL, MATLAB
Frameworks/Tools	Git, TensorFlow, scikit-learn, LaTeX, Django, Bootstrap, Jira, Jenkins, SonarQube, Apache Maven