# Syed Mahdi Rehan

Syedmahd@uoguelph.ca | www.linkedin.com/in/syedmahdirehan |
https://github.com/mahdirehan | (647) 671-9733

## SKILLS OVERVIEW

- **Engineering Software tools –** 3D SolidWorks, AutoCAD, MATLAB, Microsoft Word, Excel.
- **Computer Languages –** Python, C/C++, Java, SQL.

## EDUCATION

**Bachelor of Engineering | Engineering Systems & Computing (Co-op)** September 2022 - Present
*University of Guelph, Guelph, ON*

- Relevant courses include: Engineering Design, Digital Systems Design, Material Science, Engineering Analysis.

## WORK EXPERIENCE

**Engineering Co-Op Work Term** June 2024 – September 2024
*Engineering Consultants International Limited, Dubai, UAE*

- Developed Operational Asset Management Plans (OAMPs) for 28 road assets, ensuring regulatory compliance and enhancing public safety.
- Gained hands-on experience with advanced data collection technologies including LiDAR, GPR, LCMS and Retroreflectometer.
- Utilized advanced data analysis software such as GIS, ROMDAS, and TRIMBLE to integrate collected data, assess road infrastructure conditions, and develop optimized maintenance plans, improving asset longevity, safety, and cost efficiency.
- Managed multiple OAMPs simultaneously using project management skills such as scheduling, time and resource allocation, and multitasking to ensure timely and successful project deliverables.
- Worked alongside Dr. Omar Smadi, a subject matter expert from Iowa State University, to refine asset management plans, gaining valuable insight into best engineering practices.

**Mobile Application Developer** December 2024 – January 2025
*AMH Tech Solutions, London, Ontario, Canada.*

- Developed a mobile app for road surveys, integrating accelerometers, GPS, and cameras for real-time video, photo, and metadata collection to analyze road condition data.
- Automated the estimation of Pavement Condition Index (PCI) and International Roughness Index (IRI) by processing accelerometer and GPS data, enhancing data accuracy and operational efficiency.

## ENGINEERING PROJECTS

**Engineering Design 1 Project** September 2022 – December 2022
*University of Guelph, Guelph, ON*

- Utilized AutoCAD to design and blueprint the architecture of the vehicle.
- Used C++ to program movements for the vehicle to avoid obstacles and complete all the tasks.
- Modeled the entire final structure in SolidWorks (50+ pieces).

## CERTIFICATIONS

**Certified SolidWorks Associate – Mechanical Design** March 2024
*University of Guelph, Guelph, ON*