

Wael Halabi

✉ wael.halabi@mail.utoronto.ca |  Wael Halabi

EDUCATION

Bachelor of Applied Science and Engineering (B.A.Sc) in Civil Engineering

September 2022 – April 2027

University of Toronto, Toronto, ON

CGPA : 3.50

- **Awards:** Manuel A. Fine Scholarship, Victor Xin Scholarship In Esports, Wsp Scholarship In Building Engineering, Honors, Deans List (x3)

SKILLS

BIM and Design Software: Autodesk Revit, AutoCAD, Rhino 3D, ArcGIS, QGIS, SketchUp

Languages and Libraries: Python (Pandas, NumPy, SciPy, scikit-learn, Matplotlib, psycpg2, SQLAlchemy), SQL (PostgreSQL), R

Tools and Platforms: Git, GitHub, DBeaver, SSH, AWS, LaTeX

Other Skills: Microsoft Suite (Excel, Word, PowerPoint, Flow, Power Automate), Project Management, Arabic Fluency

EXPERIENCE

City of Toronto

September 2025 – September 2026

Transportation Services Data Science Intern

Toronto, Canada

- **Assisted in developing the City's bicycle AADT estimation framework**, combining multi-source traffic counts, temporal normalization, seasonal adjustment, and confidence interval estimation to support transportation planning.
- **Built automated congestion monitoring workflows** supporting **FIFA World Cup** transportation planning, enabling city-wide monitoring of network performance and operational decision-making.
- **Designed an analytics pipeline evaluating Automated Speed Enforcement (ASE) camera removals**; analyses informed City Council reporting and public communications discussed by the Mayor.
- Developed geospatial accessibility models in R and QGIS, along with machine learning models for **traffic congestion forecasting** and **collision severity prediction**.

Saudi Icon

May 2024 – July 2024

Civil Engineering Intern

Riyadh, Saudi Arabia

- Supported site engineering for a **9-floor building** and external infrastructure project, collaborating with foremen and engineers to uphold safety and compliance standards.
- **Supervised concrete testing**, verified materials met local engineering standards, and **reviewed blueprints** to identify construction risks.
- Managed communication between on-site teams and management to **resolve workflow bottlenecks** and ensure timely project delivery.

PROJECTS

Forecasting AI's Effect on Hospital Costs by Analogy to Industrialization and the Dot-Com Era

- Placed **10th out of 328 participants, 100+ teams** at the NSRI Summer Research Hackathon.
- Forecasted hospital administrative cost trends through 2034 by benchmarking AI adoption against electrification and the dot-com era, using Medicare Cost Report data across **6,000 hospitals from 2011 to 2024**.
- Concluded administrative costs will likely keep rising toward **19.9% by 2034**, since electronic health records, the closest past example of a hospital adopting new technology quickly, produced no cost savings in over a decade.

ShiftED: Dynamic Triage Monitoring System - Winner of the Translational AlxBio Hackathon

- Co-developed a wearable-enabled patient monitoring platform for early deterioration detection across healthcare settings.
- Developed individualized AI baseline monitoring to identify abnormal patient trends and support preventative care.
- Currently advancing the project into a health technology startup focused on scalable real-time clinical monitoring.

EXTRACURRICULARS

CANADIAN SOCIETY FOR CIVIL ENGINEERS (CSCE)

November 2023 – Present

Co-President (Apr 2025 – May 2026) | VP Academia (Nov 2023 – Apr 2025)

- Led a six-sector executive team supporting over 300 engineering students through professional development, networking, and academic initiatives.
- Secured over **\$4,000** in sponsorships and managed annual event budgets exceeding **\$14,000**.
- Founded the External Relations Team and led more than 20 executive interviews to strengthen long-term organizational growth.