

Jawad Samour

EDUCATION

Bachelor of Chemical Engineering (Co-op) | McMaster University

Sep 2021-May 2026

WORK EXPERIENCE

Mechanical/Chemical (Stations) Engineering Intern

Fortis BC

Sep 2025-present

- Improved substation reliability, reducing downtime risk by 10% through engineering analysis.
- Updated AutoCAD drawings and single-line diagrams, increasing documentation accuracy by 15%.
- Streamlined reporting processes, cutting prep time by 20% while ensuring CSA/IEEE compliance

Data Engineering Intern (12 Months)

Scotiabank

Sep 2023-Aug 2024

- Built forecasting dashboards in Power BI, improving decision-making productivity by 10%.
- Streamlined data collection workflows, boosting efficiency 15% and cutting excess stock 12%.
- Worked with SQL, Python, AWS, VBA, Google Cloud APIs, Power BI, Excel.

Supply Chain Engineering Intern (4 Months)

Canada Post

May-August 2022

- Designed warehouse layout improvements in AutoCAD, raising handling efficiency by 15%.
- Performed root cause analysis of disruptions, reducing fulfillment delays by 15%.

PROJECTS

Manufacturing Plant Project

- Designed a cradle-to-gate styrene production process in Aspen Plus, integrating ethylbenzene synthesis and dehydrogenation units to achieve >85% conversion.
- Performed energy integration analysis, identifying 15% reduction in steam demand through heat exchanger network optimization.
- Conducted Total Annualized Cost (TAC) evaluation, reducing estimated operating costs by 12% compared to the base case.
- Completed cradle-to-gate life cycle assessment (LCA), quantifying CO₂ emissions and recommending changes that cut GHG intensity by 18%.

Process Control Modelling Project

- Created multivariate linear regression plot and simulated power production of a solid oxide fuel cell power plant using Python machine learning libraries (*TensorFlow*) and *MATLAB*
- Analyzed system and determined the system was using 15 % more energy than allowed

MacPlowers Tractor Design project

- Designed model of a revolutionized tractor using CAD (Inventor), integrated various innovative components to maximize the efficiency in the agricultural sector by 15 %
- Achieved *top 10* place in a competition with over 150 participants

EXTRACURRICULARS

Financial Automation Lead

July 2022-May 2025

McMaster Engineering Society

- Managed Hatch building and responsible for administrating the renovation of the Hatch building, reducing initial costs by 12%
- Helped organize finances using *Excel* and produced financial models using *Power Bi*, maximizing efficiency by 13 %

Junior Sponsorship Member

June 2022-Dec 2023

McMaster Design League

- Secured \$20,000+ sponsorships by contacting 320+ companies.

Braking Team Member

Aug 2024-present

McMaster Chem Eco-Car

- Optimized braking response via material testing, reducing response time by 25%.
- Helped team secure 1st place overall in annual AIChE Chem-E-Car regional competition.

SKILLS

MANUFACTURING/PROCESS: Aspen Plus, HYSYS, AutoCAD, ANSYS, GD&T, PFD/P&ID, FEA, PLC

PROJECT MANAGEMENT: *Lean Six Sigma*, *Agile*, *Jira*, *SAP*, *ISO 14001*, *Risk & Safety Audits*

COMPUTATION/DATA SCIENCE: *Python (pandas, NumPy, TensorFlow)*, *MATLAB*, *SQL*, *VBA*, *Power BI*, *Excel*