

Maggie Payton

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HIGHLIGHTS OF QUALIFICATIONS

- Currently a Level 4 Automation Engineering Technology student at McMaster University
- Coursework in chemical, mechanical, electrical, electronics and computer engineering with an emphasis in industrial processes and hardware/software concept in process automation

EDUCATION

Bachelor of Technology, Automation Engineering Technology

September 2021 – January 2026

McMaster University, Hamilton Ontario

- Will be awarded with a Bachelor of Technology Degree, Chemical Engineering Technology Advanced Diploma (Mohawk College), and a Business Management Certificate (Mohawk College)

RELEVANT EXPERIENCE

Mechanical Design Co-op

May 2022 - Present

OPUS Automation, Ancaster Ontario

- Designed and implemented aluminium machine guarding and drip pan systems at Magna Powertrain
- Installed pneumatic cylinders, door switches, door sensors, conveyor sensors, remote I/O blocks, RTE boxes, and ran wire at various work sites
- Edited factory layouts in AutoCAD, created 3D models in inventory from tiny switch plates to entire robot cells and performed reach tests within
- Participated in weekly team meetings, communicated project progress, developed schedules, and produced daily technical reports for assorted management using Excel Pivot tables and Macros
- Contributed to the design, development, building, installing, and commissioning of robotic automation

OTHER EXPERIENCE

Sales Representative

June 2020- November 2021

Hamilton Tech Drive, Hamilton Ontario

- Increased sales efficiency by 70% by taking additional leadership sales training courses
- Promoted high-tech alarm systems to homeowners and surrounding areas, with a total of 20 tech products sold in the first week compared to a store wide average of 12
- Collaborated with management from sales, logistics, marketing, and tech services on successful methods to effectively close sales (bundling, great customer service, add-ons)

SKILLS & QUALIFICATIONS

Software

- Academic knowledge of **C++** to code, test and debug a program created to determine the weight of an aircraft to determine the number of passengers and cargo that can be carried on the aircraft
- Utilized **MATLAB** to process images with techniques such as shadow removal, watermark removal, smoothing, and edge detection

- Knowledge of **AutoCAD, LabView, and VB.net**

Robotics

- Wired and programmed an Arduino Uno to control a robotic arm using servos and the serial monitor
- Experience in wiring and calibrating process controls including flow, level, pressure, and temperature
- Strong background in building circuits and measuring voltages, currents, resistances with digital multimeters, oscilloscopes, and function generators

Chemical Processing/Lab

- Collaborated in a team of 3 to distill Toluene from Cyclohexane using an eight-phase distillation column
- Learned how to operate large chemical engineering machinery, along with the associated human machine interfaces, and properly take samples from machines

EXTRACURRICULAR ACTIVITIES & PROJECTS

McMaster Baja Racing

January 2023 - Present

McMaster University, Hamilton Ontario

- Worked in a team of 30 to design, manufacture and race a single-seat all-terrain sporting vehicle prototype that is reliable, maintainable, ergonomic, and serves a recreational market. Placed 10th at Baja SAE Tennessee 2022

McMaster Badminton Club

September 2022 - Present

McMaster University, Hamilton Ontario

- Compete in organized games during weekly club nights

Director of Outreach

September 2023 – April 2024

Engineers Without Borders

- Created and facilitated weekly workshops for a 13-week semester
- Lead a team of 4 to design and implement 2 major workshops for university classes
- Educated students about socio-economic problems and how engineers can create and promote solutions