

THOMAS FRENCH

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EDUCATION

Master of Applied Science (Mechanical Engineering)

September 2024 – Present

McMaster University

Hamilton, ON

- Thesis: Fault Detection for 7-Degree-of-Freedom Robotic Manipulators in Space Applications.
- Designed and built a 7-DOF robotic arm in partnership with MDA Space, integrating custom hardware and electronics with off-the-shelf actuators and high-resolution sensors.
- Awarded the Ontario Graduate Scholarship (\$15,000) in 2025.

Bachelor of Engineering (Mechanical Engineering, Co-op)

September 2019 – June 2024

McMaster University

Hamilton, ON

- Minor in Mathematics
- Cumulative GPA: 10.6/12 (Dean's List 2020-2024)

SKILLS

Technical: Mechanical Design and Modelling (Autodesk Inventor), Prototyping (3D Printing), Machining (Manual and CNC).

Programming: Data Analysis and Machine Learning (Python), Robotic Control and Simulation (MATLAB, Simulink), Signal Processing and Estimation (MATLAB).

Languages: French (fluent, French Baccalaureate), Spanish (advanced conversational, DELE certified).

EXPERIENCE

McMaster University

September 2024 – Present

Graduate Teaching Assistant

Hamilton, ON

- Taught upper-year undergraduate Mechanical Engineering laboratory courses in an engineering machine shop, training 180 students per semester in safe machine operation, dimensioning and tolerancing, and best practices.
- Coordinated with machine shop technicians to develop and deliver hands-on lessons, preparing students to independently use milling machines for their final-year capstone projects.

Modern Niagara

July 2022 – April 2023

Project Coordinator (Co-op)

Toronto, ON

- Worked within a team of project managers and engineers to provide onsite project management for two commercial mechanical construction projects in Toronto.
- Managed site progress and tracked productivity for a team of 25 tradespeople by conducting weekly site inspections, coordinating with forepersons, maintaining progress logs, and providing weekly reports to supervisors.
- Organized and maintained construction drawings, reviewed plans, and proposed a design change that resulted in project savings of over \$10,000.
- Created a procedures manual to standardize the project coordinator role that was distributed to teams across the country.

MediResource

May 2021 – August 2021

Content Coordinator (Co-op)

Toronto, ON

- Supported an interdisciplinary team delivering digital health solutions to Canadian pharmacies and healthcare partners.
- Managed several large pharmaceutical reference databases and performed quality assurance testing on system development projects in English and French, ensuring content accuracy and system reliability for end-users.

PROJECTS

Pneumatic Impactor for Biomedical Testing

September 2023 – April 2024

- Worked within a team of four engineering students to design and construct a modular pneumatic cannon capable of launching projectiles towards a test specimen, achieving an impact velocity of up to 60 m/s.
- Managed the project budget, sourced and ordered parts, and designed and machined custom components.
- The device continues to be used for graduate-level biomedical research at the McMaster Injury Biomechanics Laboratory.

EXTRACURRICULARS

Mechanical Engineering Graduate Society

September 2025 – Present

Treasurer

Hamilton, ON

- Managed an annual budget of \$2,500 and ensured responsible allocations of funds for the student-run society.
- Maintained detailed financial records in accordance with McMaster's financial accountability policy.