

TRENTON FRANKLIN

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Education

Queen's University

B.A.S.c Mechatronics and Robotics Engineering

Kingston, ON

Sep 2023 – May 2027

- **Relevant Courses:** Microprocessor Interfacing & Embedded Systems, Data Structures & Algorithms, Signals & Systems, Sensors & Actuators, Automatic Controls, Computer Architecture, Thermodynamics, Fluid Mechanics & Fluid Power, Mechatronics & Robotics Design I & II
- **Awards:** Dean's Scholar Distinction

Professional Experience

Linkie's General Store & Gase Bar

General Employee

Lake St. Peter, ON

July 2020 – Aug 2025

- Responsible for operation of store: Open & Close; handling cash; sales of general merchandise, liquor and lottery items.
- Worked with customers, completed stock and gas orders, trusted to manage the store alone

Extracurricular Experience

Queen's Aerospace Design Team

Member of Vertical Take Off and Landing Research Team

Kingston, ON

September 2025 – May 2026

- Designing an electric/hybrid electric VTOL system for an XV-15 for the VFS 2026 aero design competition.
- Researching and modeling hybrid vehicle circuits and electronic systems.

Queen's Hyperloop Design Team

Director of The Levitation Project

Kingston, ON

August 2025 – May 2026

- Responsible for leading a small team of engineers through a professional process to design, simulate, build, and test a small pod and track compatible with both electromagnetic levitation and propulsion.
- Use Altium Electronic Desktop to model magnetic fields and simulate force output for a levitation system.
- Present research, design process, and final pod design to a panel of judges at the Hyperloop Global and European Hyperloop Week international competitions.

Linear Induction Motor (LIM) Team Manager

May 2024 – July 2025

- Responsible for leading a team of engineers through a professional process to design, build, test, and mount a linear induction motor (LIM) to the design team's hyperloop pod.
- Present research, design process, and final LIM construct to a panel of judges at the Hyperloop Global and European Hyperloop Week international competitions.

Linear Induction Motor (LIM) Research team member

September 2023 – April 2024

- Researched and developed Queen's Hyperloop Design Team's (QHDT) first prototype LIM.
- Modeled the first LIM's generated magnetic field on COMSOL Multiphysics.
- Designed and built QHDT's first full scale LIM, presented research and results to panel of judges at Hyperloop Global 2024 hosted by Toronto Metropolitan University, winning the Power and Propulsion award

Technical Skills

Hardware: Soldering, Circuit Analysis,

Design: SolidWorks, Onshape, SimScale, LTSpice, Ansys Electronic Desktop, COMSOL Multiphysics (EM modeling)

Programming: Python, Java, C, C++, HTML, MATLAB, Git, VHDL, Assembly

Productivity: Word, PowerPoint, Excel, Figma

Languages: French (Professional efficiency), English (Fluent)

Achievements

Dean's Scholar Distinction: Queen's University Faculty of Engineering and Applied Science

2025

Dean's Scholar Distinction: Queen's University Faculty of Engineering and Applied Science

2025

Queen's Engineering Competition, Jr. Design: 2nd Place

2023

Level B2 DELF: Diplôme d'études en langue française

2023

O.S.S.D. with honours in extended French: Leaside High School

2023

R.C.M. Level 5 Piano: Royal Conservatory of Music

2023