# Aidan Barber

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## Professional Summary

Innovative Mechatronic Engineering student

## Skills & Qualifications

- **Self-learner -** Through a blend of literature and hands-on experimentation, developed proficiency in Python, C++ and Arduino.
- **Collaborative team player** - Committed to a collaborative work environment, actively contributing to team success through strategic direction and insightful feedback for advancing project goals.
- **Iterative developer** - Consistently seeks opportunities to optimize and streamline code.
- **Hobbyist** -Applied real-world proficiency in 3D printing, robotics, and CNC router operations.
- **Computer Skills:** Microsoft Suite: Excel, Adobe Creative Suite, Autodesk Suite, Solidworks, NX, MatLab, Blender
- **Languages:** C, C++, Arduino, Python, MATLAB, Visual Basic
- **Awards:** Dean's List (2020/2021/2022/2024)

## Relevant Projects

**Group Project Leader, Project: Automated Delivery Robot**

Mechatronics Design | METE 4100U Sept. 2023 - Dec. 2023

- Developed strong leadership and project management skills by collaborating with two team members to successfully conceptualize, design, and test a robot capable of navigating intricate topography and a maze, including the delivery and retrieval of packages.
- Presented Design and report to to class and professor

**Group Member, Project: Capstone Project**

Capstone Sys. Design | ENGR 4950U Sept. 2023 - May. 2024

- Designed and developed a prototype for omni-directional conveyor belt
- Contributed collaboratively within the team, ensuring alignment with project objectives
- Conducted formal presentations of the design to the class, supervisor, and professor

**Group Project Leader, Project: Driverless Delivery Vehicle**

Computer Aided Design | MECE 3030U Sept. 2021 - Dec. 2021

- Led a team of four in developing an automated grocery delivery vehicle
- Conducted Finite Element Analysis (FEA) within NX for structural integrity
- Oversaw, reviewed, and finalized NX design schematics
- Presented vehicle design and report, showcasing deep project understanding

## Education

**Bachelor of Mechatronics Engineering** Sept. 2019 - Present

Ontario Tech University, Oshawa, Ontario

**Relevant courses:** AI & ML, Mechatronics Design, Robotics & Automation, Intro. to RT Embedded Sys

- Member of the Computer Science Society
- Dean's List 2020/2021/2022/2024 with a CGPA of 3.52

**Diploma in Game Art and Design** Sept. 2016 - June 2020

Centennial College, Toronto, Ontario

**Skills developed:** Critical thinking, 3D modeling, collaboration and communication

## Professional Experience

**Jr. Quality Engineering Specialist** May 2022 - August 2023

Stackpole International, Mississauga, ON

- Identified opportunities for task automation and implemented macros, reducing a three-day workload to a two hour streamlined process still in use
- Participated in daily meetings to discuss plant performance and task progress
- Trained new engineering interns and production assistants, creating necessary documentation
- Optimized existing code, reducing runtime of code used for five years in production by an average of 99.95%
- Performed automated and manual measurements of parts utilizing various equipment

**Research Technician** June 2020 - August 2020

Ontario Tech University, Oshawa, ON

- Self-managed multiple projects simultaneously while outlining project scope including deliverables and timelines
- Worked in partnership with the Electrical Engineering Fundamentals professor to create animated videos demonstrating electrical concepts such as transformers and circuit analysis to help students understand the course concepts

**Camp Counsellor** June 2019 - September 2019

Camp Riverwood, Pickering, ON

- Managed Lego Robotics and Video Game Creator workshops, guiding children in robot construction, coding challenges, and game design

**Gymnastics Coach** Sept. 2013 - May 2019

Ajax Acros, Ajax, ON

- Instructed gymnastics and parkour, elevating participants' skills, while mentoring and training new coaches, demonstrating strong communication and leadership abilities