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)

Relevant Projects

Group Project Leader, Project: Automated Delivery Robot

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

- 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 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 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