Mario Luigi

Mechatronics Engineering Co-op Student

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Education

Bachelor of Mechatronics Engineering
McMaster University, Hamilton ON

September 2020 - Present

- In level 3 of a 4-year Mechatronics Engineering co-op program
- Received Higher Education Award for GPA above 75% for multiple years
- Excellent teamwork and leadership abilities developed while working on multiple group projects

Relevant Courses:

- Engineering Computation
- Dynamic Models and Control of Physical Systems
- Software development
- Embedded System Design 1 & 2
- Operating Systems

Experience

Vice President Academic
McMaster Engineering Society, Hamilton, ON

May 2022 - Present

- Initiated the restructure of undergraduate math courses including the teaching structure of MATLAB
- Improved leadership skills by advocating on behalf of 5000 McMaster engineering students
- Work with 4 executive team members to strategically plan and oversee a $700,000 yearly budget
- Directly supervise the McMaster Engineering Competition which increased sponsorship by $9,000 from the previous year

Retail Associate – Sports Department
Canadian Tire, Hamilton ON

May 2019 - Present

- Demonstrated leadership skills through the organization of various activities for young hockey players
- Exhibit positive attitude and encouraged young hockey players to reach their full potential through skill development
- Corrected emerging habits of young hockey players to improve technique

Projects

Prosthetic Hand Design
February 2021

- Worked on a team of 4 to design, document, and 3D print a gear train as the operational mechanism of a hand prosthesis
- Presented the final product with a dynamic simulation video and demonstration of the printed prototype

Pacemaker
October 2020

- Researched, developed, and tested a real-time safety critical system through the team-based project of creating a pace with a functional device control module using MATLAB Simulink and Visual Basic

Skills

Software:

C, C++, Python, Java, HTML, MATLAB, Autodesk Inventor, Arduino

Testing Equipment:

Oscilloscopes, Function Generators, Multimeters

Safety:

WHMIS Trained
Standard First Aid

Languages:

English, French