# MANUEL LEMOS

#### Level 3 Mechatronics Engineering Coop Undergraduate

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## **WORK EXPERIENCE**

### Job Quoting and IT

#### **Hoffer Mechanical**

- Quoting and Costing of Jobs.
- Database Infrastructure Creation and Maintenance.
- 3D and 2D modeling in Inventor and AutoCAD.
- Project Planning.
- · Computerization of resources.
- Cutting and de-burring pipe in preparation for the manufacturing of vault covers.
- Providing technical support to employees.

### RELEVANT COURSEWORK

- MECHTRON 3TA4 Embedded Systems Design (Programming Microcontrollers in C)
- MECHTRON 3K04 Software Development (Programming a Pacemaker in Simulink)
- SRWRENG 2MP3 Programming for Mechatronics (C / C++)
- SFWRENG 2MD3 Data Structures/Algorithms (C)
- ENGINEER 1C03 Engineering Design and Graphics (AutoCAD Inventor)

### PROGRAMMING SKILLS

- C, C++, Python
- HTML, CSS
- STM32 CubeMX, Keil programming micro controllers in C

## **TECHNICAL SKILLS**

- AutoCAD, Inventor
- Microsoft Word, Excel
- Matlab, Simulink
- GitHub, Eclipse, Anaconda, Visual Studio Code
- LaTeX

## PERSONAL ATTRIBUTES

- Leadership
- Collaboration
- · Critical Thinking
- Problem Solving

## **EDUCATION**

# B.Eng. Mechatronics 10.2 GPA McMaster University

September 2018 - current

#### Academic Achievement

- Two consecutive year Dean's list recipient
- 2020 Masco Delta® scholarship recipient for community involvement and academic excellence
- Three consecutive year MCAHN scholarship recipient

### **PROJECTS**

# Digital Thermometer and Cooling System (Academic Project)

- Built a digital thermometer circuit which interfaced with a micro controller
- If the temperature exceeded a certain point, a fan, whose circuit interfaced with the micro controller, turned on to cool the sensor at a speed relative to the temperature difference.
- Used ADC channel to receive temperature sensor output and make digital conversion.
- Made use of PWM timer to control fan speed

#### Personal Webpage (Personal Project)

- First ever attempt at front end web development.
- Built on HTML/CSS
- Made use of numerous online resources to get started in HTML and CSS

# Safety Data Sheet Online Library (Professional Project)

- Made use of the free online cloud storage provided by google drive to create a highquality safety data sheet repository
- Sought out safety data sheet information from manufactures across a wide breadth of fields.
- Organised the drive with employee input to maximise usability.
- Created a tutorial on drive maintenance along with a dating system, so as to ensure the upkeep of the drive was maintained in my absence.

#### **Prosthetic Hand (Academic Project)**

- Designed a two-finger prosthetic hand using Autodesk Inventor under given size restrictions.
- Gained experience using CAD software and performing dynamic simulations in Inventor.