

Work Experience

AutoCAD Engineer, Glad-Clorox Orangeville

Summer 2018

- Reduced re-occurring purchasing costs by **3%** by designing replacement parts using a 3D-Printer and **AutoCAD Inventor**
- Spearheaded cooling solution for ERIMA Blender resulting in a **5%** drop in temperature and positive feedback from plant workers
- Given role as project manager tasked with working directly with third-party vendors and contractors to install a 20ft fan in multiple locations in the plant

Skills

Hardware

Verilog
PCB Design
Assembly
Quartus
Soldering
Arduino
Rasberry Pi

Relevant Projects and Extracurriculars

Word Wall (<https://bit.ly/2RgUEj1>)

August 2018

- Designed and manufactured a word display board by programming an **Arduino Nano** to multiplex 26 LEDs
- Used the onboard ADC to receive analog input from a potentiometer as well as used the I2C protocol to communicate with a LCD as a user interface
- Utilized soldering skills to transfer the design from a breadboard to a permanent perfboard

Languages

Python
C/Embedded
Java
JavaScript
HTML5
CSS3

Python OCR Script (<https://bit.ly/2RhC3TS>)

August 2018

- Wrote a **python** script that uses OCR(Optical Character Recognition) to convert images of text to a string
- Created a simple Flask server that can communicate within a home network using a **Raspberry Pi**
- Printed the converted strings by interfacing a thermal printer through serial communication

Software

MATLAB
Pspice
Linux
AutoCad

Heart Rate Sensor

January-May 2018

- Designed a heart rate data acquisition system in **Embedded C** which samples your heartbeat and sends the data to the PC via serial communication
- Used MATLAB to serially communicate with the micro controller and graphically display the heart rate's beats per minute

Tools

Git
Bootstrap
Flask

Wall-Fresh Script (<https://bit.ly/2z5JiXC>)

August 2018

- Wrote a **python** script that utilizes Reddit's PRAW API as well as urllib3 to download wallpaper images from Reddit
- Implemented Python's Imaging Library (PIL) to check if wallpaper images were the correct resolution for desktop size before downloading

Quick-Speech (<https://bit.ly/2ENXP0j>)

October 2018

- Worked with a partner to win first place at the McMaster Engineering Competition by creating an intuitive text to speech app using React Native
- Created an additional logging service that keeps track of all sent messages by using **Node.js** and websocket.io

Interests

Arduino
Electronics
Rasberry Pi
Traveling
Music
Fitness
Hackathons

Education

Bachelor of Engineering, Computer (Co-Op)

Expected Completion 2020

McMaster University, Hamilton ON

- Relevant Courses: Digital System Design, Data Structures and Algorithms, Microprocessors