

# Ahmed Hassan

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## Experience

### Antenna Design Engineer @ Mobilite (Start up)

Oct 2020 - Present

- Help advance prototyping stages of Powifi, a device that will transfer both wifi and power wirelessly to multiple devices.
- Research multiple antenna design aspects including, types of antennas, amplifications, power transfer and efficiency.

### Project Developer @ McMaster Makers

Sept 2020 - Present

- Collaborate with the project development team to come up with innovative and interesting project ideas.
- Lead and help transform project ideas into workshops.
- Conduct and present project workshops to McMaster students participating in the workshop.
- Workshops I was involved with include Android app development, Git, NLP Chatbot, Python OpenCV, and Web portfolio.

### Research & Development Intern @ Cooper Lighting Solutions

May 2019 - Sept 2020

- Collaborate with the R&D team to work through the product development process and to expose and solve bugs of various lighting related products such as LED drivers, motion sensors, light sensors and other types of lighting control devices.
- Develop automated test systems to test hardware and firmware functionality through coordinating with outside suppliers to construct components for test jigs, and selecting appropriate data acquisition equipment.
- Develop software to create automated test systems using C#, LabVIEW, Python, SignalExpress and Teststand.
- Assist in testing and troubleshooting of beta products at customer installation sites.
- Implement new operating procedures, sensors and control systems in the electronics lab to improve lab safety.

## Projects

### Vision System

An end of line testing vision system to ensure manufactured light fixtures were assembled with the correct sensors. Developed using a camera with a high frame rate and LabVIEW were used to decode data sent from the LED on the sensor .

### Health Band

A band to monitor vitals and geo location of residents in long term care and retirement homes to assist PSWs with understaffing. Designed by combining multiple sensors such as blood oximeter, GPS and  $\mu$ C. Data is sent to GCP then to an iOS app.

### Personal Website

My online portfolio website, where you can find out more about me and my experiences as well as view more of my project work. Designed and developed using React, TailwindCSS, Sanity.io as the CMS, and hosted on netlify.

## Education

### B.Eng, Electrical & Biomedical Engineering @ McMaster University

Expected April 2021

- Currently in my final year of a four-year honours engineering program majoring in **Electrical and Biomedical Engineering**.
- Dean's Honour List (2016-2018).
- Teaching Assistant for 1P13 Integrated Cornerstone Design Projects in Engineering (Sept 2020-Apr 2021).
- Teaching Assistant for 1D04 Engineering Computation (Jan 2018 - Apr 2019).

## Skills

**Languages:** Python, Matlab/Simulink, Java, C/C++, Assembly Language, HTML/CSS, PHP, Visual Basic, Javascript

**Design & Tools:** AutoDesk Inventor, OrCAD - PSpice, Minitab, VHDL, Quartus, LabVIEW, TestStand, SignalExpress, Node.JS, Git

**Lab Equipment:** Electronic Load, Oscilloscopes, Soldering, Xitron - Power Analyzer, Current Probe Amplifier, Thermotron