

# MAHMOUD YOUSSEF, E.I.T., BEng

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## EDUCATION

2014 – 2018

**UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY**  
**Bachelor of Engineering and Applied Science**

## KEY COMPETENCIES

- 2 years of **Electrical Engineering** work experience paired with JS back-end programming.
- Self-taught with resources such as, **Angela Yu, Hacking with Swift & Google/Stack Overflow**.
- 3 years of UI/UX Design on **Adobe XD, Sketch & Figma** & declarative UI Frameworks such as, **Flutter & SwiftUI**.
- 2 years of experience using **XCode, Swift, UIKit, SwiftUI, iOS Frameworks & Restful APIs** for iOS development.
- Currently working on a trivia application utilizing **SwiftUI, Cocoapods, Firebase (Cloud Firestore/Authentication) & CI/CD (GitHub/CircleCI)**. - Expected submission date - **April 2021**

## WORK HISTORY

### WOLF ADVANCED TECHNOLOGY

APRIL 2018 - APRIL 2020

#### Jr. Electrical Engineer

- Schematic design, PCB layout and maintenance and generation of corporate component libraries using **Altium Designer**.
- Designed ruggedized 3U VPX carrier boards using **SolidWorks** to provide a flexible, highly configurable PCI Express interface enabling a broad range of switch link configurations.
- Developed a simple backend structure using **NodeJS, ExpressJS & NoSQL** deployed on the **Heroku Platform**.

### AIIESEC CANADA

2017 - 2019

#### Local Committee Vice President

- Built, managed & maintained local partnerships.
- Ensure financial sustainability of AIIESEC oshawa by planning, managing, expending and controlling project costs.
- Developed resiliency, and ability to create agile solution oriented strategies

## PROJECTS

### UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

2018 - 2019

#### 1<sup>st</sup> Place Capstone Project

- Designed, built and programmed a revolutionary fully functioning head mouse that interacts with your computer and is attached to one's ear. It assists and is built for those with limb paralysis.
- Gained valuable experience with **Visual Studio IDE, C++/Java/Visio** programming **PLCs**.
- PCB and Schematic Design were created through **Altium Designer**.

## Mini Tesla/Flying Drone w/ Face-Object Recognition

- Designed, built and programmed an autonomous car that drives along a specified route and a flying drone that recognizes and identifies faces and objects. **Python** was used greatly.
- Combination of infrared/motion sensors and cameras allowed for maximum accuracy when it came to following paths.
- Motion sensor came into play when faced with obstacles along the route.
- Schematic and PCB Design in **Altium** combined a fully functional PCB that allowed differently functionalities to be processed and executed simultaneously.
- 3D Designed the car and the wheels in **Solidworks**.