

## Education

**Bachelor of Electrical Engineering,**

**September 2015 – April 2019**

*McGill University, Montreal, QC*

**International Baccalaureate Diploma Program**

**July 2013- June 2015**

*Kolej Mara Banting, Banting, Malaysia*

## Technical Skills

**Programming Languages:** Java, Javascript, HTML, CSS, C, Python, ARM assembly

**Software:** MATLAB, Wireshark, Adobe Lightroom, MS Office Suite

**Simulation Tools:** SIMULINK, SPICE, Powerworld

**Relevant Courses:** Microelectronics – Linear Systems and Control, Power System Analysis – Telecommunication Networks – Computer Organization – Computer Vision – Design Principles and Management – Engineering Economy -Microeconomics

## Work Experience

**Electrical Engineering Intern**

**June 2017 –August 2017**

*Tenaga Nasional Berhad, Kuala Lumpur, Malaysia*

- Largest electrical utility company in Southeast Asia. Was stationed at a district level electrical distribution planning office.
- Learnt how to read distribution maps of substations, breakers and cables for a particular area.
- Tasked to analyze and detect faults and discrepancies between power supply and demand based on given data and maps.
- Participated in planning meetings on determining and solving problems that were reported by the head technician
- Visited substation sites to observe preparation on how a substation is shut down for maintenance and how a substation is approved after completion.

**Web Design**

**October 2018 – April 2019**

*Airpur-FRQNT, Montreal, Quebec*

- Airpur is a project founded by Prof. Ariya of McGill university, that is a collaboration between several Quebec based universities as a cluster for researching air pollution
- Tasked to design a website for the project at first by using a website builder before moving on to apply HTML and CSS to further refine the website for optimization.
- Continued to maintain and update the website as the project goes.

**Video Game Localization Tester**

**February 2018 – May 2018**

*Keywords Studios Montreal, Montreal, Quebec*

- One of the biggest studios in providing testing services to video game developers.
- Part of the localization testing team tasked to proofread video games that have been translated in their relevant languages
- Analyzed errors, bugs and fixing inaccurate translations of video games in Malay.

**Volunteer English Teacher**

**June 2018 – August 2018**

*Colegio de San Idelfonso, Ica, Peru*

- Taught English to primary school students who are native Spanish speakers.
- Lived with a Peruvian host family as part of a cultural exchange.
- Had to learn basic conversational Spanish in order to teach and communicate with the students and the family.

**Office Assistant**

**October 2016 – April 2017**

*McGill University Chemistry Department, Montreal, Quebec*

- Tasked with documentation, archiving and disposal of department records.
- Kept track of working hours and wage payments for department staff.

## Engineering Projects

### Final Year Design Project, Web development

October 2018 – April 2019

*McGill University, Montreal, Canada*

Web design for Turbodega, a startup founded in Montreal serving users in Peru.

Aims to integrate modern internet technology with small grocery stores based in Peru.

- In a team of 4, designed a website from scratch according to requirements set by the founders
- Chose Bootstrap as the framework for front-end development
- Used Mockito as the testing framework for the website
- Transition to back-end will involve use of nodeJS
- Coordination of time and task distribution was an important aspect
- Documented progress with regular reports and meeting minutes

### School project, Lego Robot

September 2018– December 2018

*McGill University, Montreal, Canada*

Part of a capture-the-flag robot design project

- In a team of 3, developed hardware and software subsystems for system integration within the robot structure.
- Hardware include Lego EV3 Robot kit, Software include leJOS java library
- Optimized algorithm efficiency for real-time performance on an embedded system
- Coordinated with teammates to organize project logistics such as time, resources, and individual contributions

### School project, Telecommunications Research

September 2018– December 2018

*McGill University, Montreal, Canada*

A research of the quality of audio streaming applications based on internet connection type

- Captured packets of audio streams from Spotify, Apple Music and Prime Music using Wireshark
- Used Wireshark to analyze packet traces to throughput, efficiency and packet losses
- Tested for different wifi types and also 4G connectivity

### School project, Computer Vision Challenge

September 2018– December 2018

*McGill University, Montreal, Canada*

Completed a challenge to write an image identification and recognition program

- Used Miovision traffic camera dataset to train the program for localization and classification
- Wrote training program using Python and the OpenCV library.
- Tested different classifiers including Support Vector Machine, Random Forest and K-nearest Neighbour
- Carried over classifiers for localization and tested effectiveness using DICE coefficients

### School project, Op-Amp Design

September 2018– December 2018

*McGill University, Montreal, Canada*

Designed a simple functional op-amp

- Used given transistors to build amplifiers and buffers that form the different stages for an op-amp
- Tested design on SPICE before physically implementing on a breadboard

### School project, Firewall design

September 2018– December 2018

*McGill University, Montreal, Canada*

- Designed a simple firewall using iptables rules to accept or drop packets
- Tested on a virtual machine provided by the university