# Owen Yeh

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Python · Node.js · HTML/CSS · Javascript · C/C++ · SQL · Java · PHP
Tensorflow · VIM · Git · MatLab · Android · Simulink · Unity

## Education

**M.A.Sc - Electrical & Computer Engineering** *Sept 2017 - Present*
*University of Toronto*

**B.A.Sc - Electrical & Computer Engineering** *Sept 2012 - April 2017*
*University of Toronto*

## Experience

**CEO & Co-Founder** | SilenTech *Dec 2016 - August 2017*

Founded a startup to provide a new portable sound insulation system based on a network of active noise cancellation devices. This system is designed to be used in condos and apartments.

- **C programming**: Designed software filters on the Teensy system that uses ARMA and EMD models to reduce ambient noise from the audio sensors and to determine the cancellation signal for the sound transducers.
- **Embedded Design**: Designed the networking and the processing modules of the system to allow multiple devices to share signal information wirelessly.
- **Management**: Managed the communication between the founding team, the investors, and the business advisory board. This includes: weekly meetings, email updates, progress reports and business presentations.

**Project Manager & Developer** | NerveBand *Sept 2016 - April 2017*

Started a final year project aimed to develop a new smartwatch input system based on detecting EMG signals from the electrical sensors that are integrated into a watch band

- **MATLAB**: Used the Signal Processing and Wavelet Toolboxes to discover the unique frequency and time correlation patterns that exist within different finger movements in the EMG recordings.
- **Node.js & Python**: Developed a cloud system on IBM Bluemix to process the calibration algorithm for the smartwatch and to monitor the performance and health of the NerveBand system.
- **TensorFlow**: The calibration algorithm is implemented in Python Tensorflow using a second order HMM. The output of the algorithm is used to adjust the detection parameters on the smartwatch.

**Intern** | IBM, Bluemix Architecture & Performance Team *Sept 2015 - August 2016*

Took part in the development of model applications and several server benchmarks to test the new micro-services architectures at IBM

- **Node.js & Java**: Developed a micro-services application for load-balancing benchmarks that includes several Node.js and Java micro-applications that are linked together through Service Discovery and Service Registry REST API calls so the NGINX web-server can dynamically adjust the load receiver.
- **Watson API**: Developed micro-applications for a response-time benchmark that utilize multiple Watson services to simulate usage scenarios for an IBM customer.

**Intern** | IBM, WebSphere Performance Team *May 2015 - Sept 2015*

Applied standard IBM procedures to discover performance degradations due to code changes in the latest IBM middleware on the IBM Java platform.

- **XML Scripting**: Created automation scripts using STAF/STAX to automatically run and monitor the latest WebSphere build so runtime data can be collected for performance analysis.
- **Python**: Developed a light weight automation framework in python to automate the creation of IBM automation scripts to run in the IBM production framework.

**Intern** | Universal Health Network, Radiation Physics *May 2014 - August 2014*

Took part in the development of an intranet system to automatically perform quality control and quality assurance test on machines used for cancer treatments.

- **Python**: Developed a python application to automatically generate machine instructions from a GUI so non-technical users can generate their own automation procedures to operate the machines.
- **Embedded Design**: Implemented a new communication protocol with the ability to specify variables so users can control the machine more accurately from the software.

## Awards

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| **Bachelor of Honours** | University of Toronto Graduation Award |
| **Certificates of Distinction** | University of Toronto Engineering Final Project Award |
| **Stavros Leventis Award** | Academic Achievement Award |
| **Edward S. Rogers Sr. Award** | Academic Scholarship |
| **National Math Contest** | Honors and Distinction in Euclid Math Contest |
| **National Computer Contest** | Honors and Distinction in Canadian Computing Contest |