# Ho Wang Lam

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Drexel University, Philadelphia, PA
Bachelor of Science in **Electrical Engineering** and **Computer Engineering**
Minor in **Computer Science**

+1 (702) 415-4273
Anticipated Graduation - June 2018
**GPA - 3.3**

## HONORS AND AWARDS

AJ Drexel Scholarship  -  2013 – Present

Dean's List, Drexel University   -   2014

## EXPERIENCE

### Work Experience

**Halo Labs.**                    **Mar. – Sep. 2017**
**R & D Engineer**
• Developed a microcontroller, and supporting circuit PCB for robotic microscope
• Knowledgeable in PCB proto-type debugging and troubleshooting. Proficient with SMT assemblies.
• Assembled the instrument for the first **customer**
• Performed optical calibration in software and hardware Nano size partials imaging
• Developed an intensity-based image registration application for stitching microscopic images
• Developed embedded C code on the microcontroller to control custom made 2-meter-tall LED ring array for company's trade show and create various visual effects

**Rohde & Schwarz Asia Pte. Ltd.**        **Mar. – Sep. 2016**
**GUI Test Automation Engineer**
• Designed and Implemented python test scripts that control EMC testing software written in C#/WPF and communicates with EMC testing system
• Performed system integration testing in EMC chamber and controlled instruments simultaneously
• Translated professional EMC testing software from English to Chinese
• Experience with Agile development and scrum team across two different time zones

**EXELON - PECO ENERGY**            **Mar. – Sep. 2015**
**Reliability Engineer**
• Analyzed equipment performance base on statistical model for a $200 million proactive replacement project
• Assisted on emergency response, such as extreme weather conditions and catastrophic scenarios
• Managed and maintained multiple cable history databases for all the primary cable in Philadelphia
• Built statistical model base on 17 years of failure events to understand the hazard function of aging equipment
• Developed a **Cost/Performance Optimization** program for reliability enhancement
• Maintained current equipment management system

### Projects Experience

**Remote Heart Statues Monitor**    **Arduino | Android App**
• Designed the implemented electric circuit for remote heartbeat sensor in a team
• Developed effective amplification and filtering circuit for the sensor unit
• Processed and realized the data using microcontroller and Bluetooth
• Fabricated the device to be compact, portable, and energy efficient

**Seamless Compute**        **GWT | Java |Prototyping | etc**
A personal project turned senior design. The goal of Seamless Compute is to replace all personal computers with a cloud-based computer. Currently under active development.

**Office Hours Aficionado**        **NodeJS | MySQL |OAuth2**
A prototype mobile web application written in NodeJS integrate with Google Calendar for student to check professor's availability and make appointment.

**Car Tuning**            **Data analyst | ECU Programming**
A long-term hobby projects. Every time I go out driving, I logged all the sensors' data, and used that to tune my car's ECU. By tweaking open loop and close loop A/F ratio, ignition timing, VTC, i-Vtec timing and etc, I can gain 15% of power just by software change!

**Incan Gold**                    **Java | Swing**
A java swing project to mimic tabletop game Incan Gold by Alan R. Moon and Bruno Faidutti. The players are adventures who must explore an Incan temple rumored to contain many treasures.

**More demos on: lamho.io**



## SKILLS

**Programming:**
**Array Languages**: MATLAB/Octave
**Object-Oriented:** C++, Java, C#, Python, Visual Basic
**Web**: HTML/CSS/JavaScript/Nodejs/GWT
**Functional Programming:** Racket
**Others**: C/Embedded C, SQL, VHDL, Verilog, CUDA
**Language:**
Mandarin, Cantonese, English

**Tools:** version control (git, RTC), SQL, build tools (make, maven), .NET, OpenCV, OpenGL, CUDA, OpenMP, SSE, GWT, Google Cloud Platform, AWS, and many more
**Applications** : Creo Parametric, Solidworks, AutoCAD, Modelsim, Microsoft Office, MySQL, Eagle PCB
**OS** : Linux/ Unix, Windows, MacOS, Android
**Hardware:** Oscilloscope, microcontroller and circuit design