

# Hsuan Han(Edward) Lai

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## Summary

- A confident and creative programmer who is self-motivated in a quickly changing environment.
- Outstanding communication skills in team development or vendors.
- Strong skills in Python, Java, Mobile App Development, and Machine Learning.

## Education

2016- 19 **Pennsylvania State University** Bachelor of Science in *Computer Science (B.A.)*

**Selected Coursework:** *Design and Analysis of Algorithms, Data Structure, App Programming, Artificial Intelligence, Neural Network, Database Design, Project Management, Compiler Construction, Software Engineering and Design, Discrete Mathematics for CS, Web Developing.*

2014- 16 **Shoreline Community College** *Associate of Arts in Computer Science (A.A)*

2011- 14 **National Taichung Industrial High School** *Electronic Engineering*

## Technical Experience

**Software Developer Intern** *DigiWin Software Co., Ltd. , Taichung, Taiwan*

May 2018- Aug 2018

- Utilized Google Cloud service with industrial use management software.
- Design software for Android users, Implemented back-end database MySQL to provide visualized user interface.
- Developed more efficient algorithms to process all informations sent by the PLC industrial system.
- [ Android, Java, MySQL, JSON, Google Cloud IoT ]

**WordPress Developer** *Quality Athletics Restaurant, Seattle, WA*

March 2016 - June 2017

- I developed a static webpage with Bootstrap framework for organization specialized in the fundraising of food.
- Developed website with high maintainability and scalability, forms utilizing PHP, and deployment of website and hosting.
- [ HTML/ CSS/ Javascript, Bootstrap, PHP ]

**Electronic Technician** *Electronic Products Repair, Seattle, WA*

Sep 2013- May 2016

- I provided repairing services for a wide range of product types.
- Problem solving in hardware and software repair, such as PC, mobiles, tablets and OS system. Achieved over 150 pieces of electronic devices fixed

## Projects

**HTML Forge** - AI Recognize user hand drawing and convert into code

- Developed custom Tensorflow model recognize user's hand-drawing and Implemented OpenCV pre-processing unit to cluster and identify objects. Also Designed algorithm to achieve better time and space complexity in the runtime of web environment. [ Python, Machine Learning, Tensorflow, OpenCV, Computer Vision]

Link: [https://github.com/adward/HTML\\_Forge](https://github.com/adward/HTML_Forge)

**Compiler Design** - lexical, syntax, semantic analyzer that will compile and analyze C Minus Language.

- Developed in Java with Bison, JFlex, and YACC framework. With compiler optimization, static analysis, garbage collection, and error detection. Experienced with Context-Free-Grammar and Regular Expressions implementations
- [ Java, C, Compiler, Bison, JFlex, YACC ] Link: [https://github.com/adward/minc\\_lexical-analyzer\\_syntaxChecker](https://github.com/adward/minc_lexical-analyzer_syntaxChecker)

## Leadership Experience

**Engineering Club President** *Shoreline Community College, Seattle, WA*

Sep 2014 - May 2015

- Lead of organizing and managing the club. Practical skills from brainstorming to final execution of the project. Robot mouse algorithms design using C++.

**Founder and Instructor** *Creative Robot Design Club, Taichung, Taiwan*

Feb 2012 - April 2013

- Promote the engineering concepts to the general public. And planned operational schemes to make lessons to teach robotic design. With Sourcing, and management skills of a start-up engineering club.

## Awards and Accomplishments:

1st, **American Society of Mechanical Engineering Sumo Robot**

1st, **Race of Automated Computer Mouse (US nationwide)**

**Gold Award, Finland SciFest Science Fairs, Finland**

**4th, International Micro-Robot Competition, Japan**

**(Graduating on 2019/05 Spring) Seeking 2019 Software Development Full-Time Position.**