

# HSUAN-YOU (Shaun) LIN

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## EDUCATION

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### Rice University

*Houston, TX*

*M.S. in Electrical and Computer Engineering*

Expected Dec. 2023

**Coursework:** Introduction to Deep Machine Learning, Graduate Design and Analysis of Algorithms

### Feng Chia University

*Taichung, Taiwan*

*B.S. in Automatic Control Engineering, GPA: 3.5/4.0*

Jun. 2021

**Coursework:** Mobile Application Programming, Machine Learning, Programmable Logic Control

## SKILLS

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**Programming Languages** Python, Swift, C/C++, MATLAB, PLC

**Tools & Framework** Git, XCode, Visual Studio, OpenCV, PyTorch, TensorFlow, Firebase

## WORK EXPERIENCE

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### University of Strathclyde

*Glasgow, UK*

*Research Intern*

Jun. 2021 – Oct. 2021

- Developed a spectrum classification model for recycling package quality assessment in collaboration with the **Scottish Government - Scottish Environment Protection Agency (SEPA)**.
- Improved accuracy of recycled materials classification by 20% using machine learning.
- Optimized Near-infrared (NIR) and Fourier-transform infrared (FTIR) spectral data through various algorithms, and **refactored** codebase by Python to increase readability.

## PROJECT EXPERIENCE

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### Multi-brand IoT Integration App

Mar. 2021 – Jun. 2021

- Integrated **over 30+ IoT products** on the iOS platform, the application synthesizes each different brand's IoT product API using **Swift UI** in the Xcode IDE.
- Managed UI-related data that follow **Human Interface Guidelines (HIG)** in iOS application development.

### Handheld Automatic Acupoint Stimulation System

Jul. 2020 – Feb. 2021

- Designed a deep learning model using TensorFlow and Python to detect and track acupoints in video feeds from a camera mounted on a portable device with **90% accuracy**.
- Utilized Firebase platform and working with professional Traditional Chinese Medicine (TCM) doctors, established a reliable symptom-to-acupoints database with **more than 2,000 acupoints**.
- **Granted \$1,700 research fund** from the Ministry of Science and Technology in Taiwan.

### Personal Training System with Artificial Intelligence

Feb. 2020 - Nov. 2020

- Built a fitness training **Swift** mobile app for iOS platform to synchronize the fitness coach feedback system with the embedded devices.
- Implemented a real-time pose estimation model on the Nvidia Jetson Xavier NX platform, achieved an **average 95%** accuracy as well as **60fps** using PyTorch.
- **Awarded the First Place** in the Asia Pacific Regional Competition and **won \$1,600 bonus**.