

# Lin-Yung Hsieh

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## EXPERIENCE

**Intern at Industrial Technology Research Institute (ITRI)** Jul. 2021 – Present  
*Summer Intern at Information & Communications Research Laboratories (ICL)* HsinChu, Taiwan

- **Video Coding for Machines (VCM)**
- Dynamically quantize the feature maps in **Detectron2** Model and observe the change in mAP of object detection

**Teaching Assistant in "Embedded System Laboratory" Course** Feb. 2021 – Jun. 2021  
*National Tsing Hua University (NTHU), Instructor: Prof. Jing-Jia Liou* HsinChu, Taiwan

- Use C++ and Python to control the embedded board and communicate with other devices like PC
- Course coverage: embedded system, serial communication, machine learning, wireless communication, sensors, etc

**Undergraduate Research Student in Vision Science Lab (VSLab)** Jul. 2020 – Jun. 2021  
*National Tsing Hua University (NTHU), Instructor: Prof. Min Sun* HsinChu, Taiwan

- Research Topic: **A Study on Active Learning for Improving Object Detection Model in Home Care System Using Limited Amount of Data**
- Sample out false positive and false negative frames in video
- Apply **active learning** to improve the performance of our model when it is placed in a new environment

## COMPETITIONS

**MeiChu Hackathon Competition - 1st Place** Oct. 2020

- Collect the mouse data while a player is playing games and detect whether he/she is cheating using machine learning
- We won **the first place** out of 54 teams, which was reported in news

**ChungHua Telecom: AIOT Hackathon Competition** Aug. 2019

- Implement license plate recognition on Raspberry Pi 3 using PyTorch APIs
- Send the result back to ChungHua Telecom IOT Platform to detect whether it is a stolen car

## EDUCATION

**National Tsing Hua University** Sep. 2018 – Jun. 2022  
*Bachelor in Electrical Engineering* HsinChu, Taiwan

- **Courses:** Data Structure, Computer Architecture, Operating System, Analog Integrated Circuits, VLSI Design
- **Overall GPA:** 3.83/4.3

## SKILLS

**Languages :** Python, C/C++, Matlab, Verilog, Assembly

**Tools :** GitHub, VS Code, Linux, Hspice, Laker

## EXTRACURRICULAR ACTIVITIES

**NTHU EE Camp** Jul. 2019 & Jul. 2020

- Teach high school students C Language, logic design, and help them finish a radio-controlled car using Arduino

**Activities Director of EE Student Association** Sep. 2019 – Jun. 2021

- Plan and organize all the activities in our department such as EE-Week