

# Yu-Hsuan (Eva) Li

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## EDUCATION

### Carnegie Mellon University

Master of Science in Computer Vision

Pittsburgh, PA

Dec. 2025

### National Yang Ming Chiao Tung University (NYCU)

Master of Science in Computer Science and Engineering | GPA: 4.3/4.3

Hsinchu, Taiwan

Dec. 2021

- Honorary member of The Phi Tau Phi Scholastic Honor Society, Apr. 2022

Bachelor of Science in Electrical Engineering and Computer Science | GPA: 4.21/4.3 | Rank: 1/24

June 2020

- Dean's Honor List seven semesters, 2016 – 2020

### University of Illinois Urbana Champaign

Exchange Student | GPA: 4.0/4.0

Urbana, Illinois

Sep. 2019 - Dec. 2019

## SKILLS

**Programming:** *Advanced* - Python, PyTorch; *Intermediate* - C++, MATLAB, TensorFlow, Verilog, JavaScript

**Tools:** Version Control (Git), Docker, ROS2, PX4, OpenCV, scikit-learn, Pandas, Blender, Gstreamer, k6, MySQL

**Platforms:** Linux, NVIDIA Jetson, Raspberry Pi

## EXPERIENCE

### Tron Future Tech

Senior Software Engineer

Hsinchu, Taiwan

Feb. 2022 - June 2024

- Led a four-member camera team in developing T.Cam from scratch and participated in sprint planning and daily stand-ups
- Designed software architecture, data flow, usage scenarios, simulation environment, and evaluation metrics for T.Cam, enabling tracking of DJI Mavic 3 (0.0106 m<sup>3</sup>) at distances over 350 meters
- Developed and improved target movement estimator and camera/flight control algorithms for UAV tracking using a Kalman filter, achieving an approximately 86.55% reduction in position estimation mean error
- Enhanced detection models to reduce false alarm rates by 91.97%; created company's first image dataset (real/rendered) with over 150,000 objects using Blender and a web crawler

### National Yang Ming Chiao Tung University

Teaching Assistant for Machine Learning

Hsinchu, Taiwan

Sep. 2020 - Dec. 2020

- Assisted in study sessions, reviewed exams, and graded assignments for a class of 68 students on fundamentals of machine learning, receiving positive feedback for effective teaching, particularly from international students

## RESEARCH AND ACADEMIC PROJECTS

### National Yang Ming Chiao Tung University

Zero-Shot Learning for Novel Attribute Synthesis | Paper | Project Page | Code

Hsinchu, Taiwan

Sep. 2020 - Dec. 2021

- Published in NeurIPS 2022, achieved 2022 Taiwanese Association for Artificial Intelligence Best Master Thesis Award and was selected as a Distinguished Paper at CVGIP 2022
- Innovated techniques and developed a groundbreaking decompose-reassemble scheme for automating annotation of attribute labels in zero-shot classification datasets
- Accomplished an 89.74% reduction in annotation costs while maintaining or improving performance of attribute labels for zero-shot classification datasets

Fake News Detection | Code | Report

Feb. 2021 - June 2021

- Devised a method utilizing BERT to extract embeddings from tweets and replies, and trained a classifier for fake news detection, attaining an F1 score of 0.7149 on test data

Double Q-Learning | Report

Feb. 2021 - June 2021

- Supplemented key assumptions of Double Q-Learning paper with supporting proofs essential to its findings, providing detailed explanations and relevant equations to enhance understanding

Music Accompaniment Generation | Poster | Slides

Sept. 2018 - June 2019

- Introduced a novel method using short-time Fourier transform to convert music waveforms into spectrograms, and trained a conditional VAE to generate vocal accompaniments

### University of Washington

Camera Tracking and Generative Adversarial Network

Seattle, Washington

July 2018 - Aug. 2018

- Investigated leveraging smoothness of targets in single camera tracking and utilizing CycleGAN to transform real-life individuals into captivating cartoon animations