

Pei-Chi Chen

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EDUCATION

M.S., National Yang Ming Chiao Tung University

Graduate Degree program of Artificial Intelligence

Sep. 2022 – Aug. 2024

Hsinchu, Taiwan

- Thesis: Enhancing Coherence and Fidelity in Camouflaged Image Generation
- Advised by Prof. Wen-Huang Cheng and Prof. Hong-Han Shuai

B.C., National Tsing Hua University

Engineering and System Science

Sep. 2018 – Jun. 2022

Hsinchu, Taiwan

- GPA: 4.17 / 4.3 (ranked 1st)

EXPERIENCE

Institute of Information Science, Academia Sinica

Research Assistant

Oct. 2024 – Present

Taipei, Taiwan

- Research in 3D computer vision, robotic vision
- Advised by Dr. Tyng-Luh Liu

PUBLICATIONS & PREPRINTS

- [1] **Pei-Chi Chen**, Yi Yao, Chan-Feng Hsu, Hongxia Xie, Hung-Jen Chen, Hong-Han Shuai, Wen-Huang Cheng. **Foreground Focus: Enhancing Coherence and Fidelity in Camouflaged Image Generation**. ICME, 2025.
- [2] Li-Wu Tsao, Hao-Tang Tsui, Yu-Rou Tuan, **Pei-Chi Chen**, Kuan-Lin Wang, Jhih-Ciang Wu, Hong-Han Shuai, Wen-Huang Cheng. **TrajPrompt: Aligning Color Trajectory with Vision-Language Representations**. ECCV 2024. [paper](#)
- [3] Dinesh Bhalothia, Wei-Hao Hsiung, Shou-Shiun Yang, Che Yan, **Pei-Chi Chen**, et al. **Submillisecond Laser Annealing Induced Surface and Subsurface Restructuring of Cu–Ni–Pd Trimetallic Nanocatalyst Promotes Thermal CO₂ Reduction**. ACS Appl. Energy Mater. 2021. [paper](#)

HONORS AND SCHOLARSHIPS

2023	Foxconn Technology & NYCU Scholarship
2022	Foxconn Technology & NYCU Scholarship
2022	GARMIN Scholarship
2022	FamilyMart AI Scholarship
2022	Phi Tau Phi Scholastic Honor Society – Honorary Membership
2020	The Zhu Shun Yi Zyxel Scholarship

PROFESSIONAL SERVICES

2025	Reviewer , IEEE International Conference on Multimedia & Expo (ICME)
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PROJECTS

Traffic Light Detection (Collaborate with GARMIN)

Sep. 2022 – Jun. 2023

- Developed a system for detecting traffic lights and countdown timers under various weather conditions.
- Addressed the data scarcity issue in horizon traffic light countdown detection.

Histone Image Reconstruction

Sep. 2021 – Jan. 2022

- Reconstructed H2B histone fluorescence images from COBRI inputs using U-Net.

Lung Tumor Segmentation*Spring, 2021*

- Employed a dual-branch CNN to segment tumor regions from fluorescence microscopy images.

Statistical Analysis of Atomic Lattices*Spring, 2021*

- Analyzed lattice arrangements in material TEM images using image processing techniques.