

EDUCATION

National Taiwan University

Taipei, Taiwan

Master of Science in Computer Science and Information Engineering

Sep. 2018–Jun. 2020

- Thesis: “3D Video Stabilization with Depth Estimation by CNN-based Optimization”
Committee: Yi-Ping Hung (advisor), Yung-Yu Chuang, Yu-Chiang Frank Wang, Chu-Song Chen, Kuan-Wen Chen
- GPA: 4.24/4.30
- Rank: 7/132

National Chiao Tung University

Hsinchu, Taiwan

Bachelor of Science in Computer Science

Sep. 2014–Jun. 2018

- Network and Multimedia Engineering Program
- GPA: 4.14/4.3; (major) 4.2/4.3
- Rank: 1/50

PUBLICATIONS

1. **Yao-Chih Lee**, Kuan-Wei Tseng, Yu-Ta Chen, Chien-Cheng Chen, Chu-Song Chen and Yi-Ping Hung, “3D Video Stabilization with Depth Estimation by CNN-based Optimization,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.
2. Hau Chu, Jia-Hong Lee, **Yao-Chih Lee**, Ching-Hsien Hsu, Jia-Da Li, Chu-Song Chen, “Part-aware Measurement for Robust Multi-View Multi-Human 3D Pose Estimation and Tracking,” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops*, 2021.
3. Yu-Ta Chen, Kuan-Wei Tseng, **Yao-Chih Lee**, Chun-Yu Chen, Yi-Ping Hung, “PixStabNet: Fast Multi-Scale Deep Online Video Stabilization with Pixel-based Warping,” *The 28th IEEE International Conference on Image Processing (ICIP)*, 2021.
4. Ping-Jung Duh, Yu-Cheng Sung, **Yao-Chih Lee**, Kuan-Wen Chen, Liang-Yu Fan Chiang, “A Design of Vision-based Navigation System for the Visually Impaired,” *ACM SIGCHI Taipei Chapter (TAICHI)*, 2018.
5. Yu-Cheng Sung, **Yao-Chih Lee**, Sarah Wang, Wei-Ting Hu, Kuan-Wen Chen, “An UAV Autopilot System for Sports Player Tracking,” *ACM SIGCHI Taipei Chapter (TAICHI)*, 2017.

EXPERIENCE

Academia Sinica

Taipei, Taiwan

Research Assistant (full-time)

Sep. 2020–current

- Advised by Prof. Chu-Song Chen
- Self-supervised monocular video depth and camera ego-motion estimation
- Multi-view multi-human 3D pose estimation and tracking
- Scene text spotting
- Metal artifact reduction from CT image

Human-AI Interaction Research Project

Research Assistant (part-time)

Taipei, Taiwan

Jul. 2020–Aug. 2020

- Advised by Yi-Hsiu Chen (National Chengchi University, Taiwan), Chien-Wen (Tina) Yuan (National Taiwan Normal University, Taiwan), and Gary Hsieh (University of Washington, Seattle)
- Develop a website for a human-AI collaboration research experiment

imLab@National Taiwan University

Graduate Research Assistant (part-time)

Taipei, Taiwan

Sep. 2018–Jun. 2020

- Advised by Prof. Yi-Ping Hung and collaborating with MeidaTek Inc.
- Learning-based video stabilization
- Self-supervised monocular depth and camera ego-motion estimation
- Evaluation on the performance of various local feature algorithms and modifying ORB-SLAM system

CoVis Lab@National Chiao Tung University

Undergraduate Research Assistant (part-time)

Hsinchu, Taiwan

Aug. 2016–Jun. 2018

- Advised by Prof. Kuan-Wen Chen
- UAV autopilot system with visual tracking
- Learning-based viewpoint-invariant and illumination-invariant local feature
- Indoor 3D model segmentation for virtual reality

TEACHING

- | | |
|---|-------------|
| • 3D Computer Vision and Deep Learning
<i>Teaching Assistant (Instructor: Chu-Song Chen) at NTU, Taiwan</i> | Spring 2021 |
| • Digital Image Processing
<i>Teaching Assistant (Instructor: Yi-Ping Hung) at NTU, Taiwan</i> | Fall 2019 |
| • Probability
<i>Teaching Assistant (Instructor: Yi-Ping Hung) at NTU, Taiwan</i> | Spring 2019 |
| • Computer Vision for UAV Autopilot
<i>Teaching Assistant (Instructor: Kuan-Wen Chen) at NCTU, Taiwan</i> | Spring 2018 |

AWARDS

- **Academic Excellence Award $\times 4$**
Top 5% ranking in Fall 2014, Spring 2016, Fall 2016, and Spring 2017
- **Undergraduate Project Competition Excellence Award**
Project: An UAV autopilot system for sports player tracking
- **Departmental Core Course Scholarship**
Top 3 ranking in the course of Operating System

ACADEMIC ACTIVITIES

- **Pattern Recognition**
Reviewer

EXTRACURRICULAR ACTIVITIES

- Director at Midland of Taiwan Alumni Association in NCTU Sep. 2015–Aug. 2016
Detailed explanation of what you do at this club
- Member at Computer Science Association in NCTU Jun. 2015–May. 2016
Detailed explanation of what you do at this club
- Member at Tennis Team of the Computer Science department in NCTU Sep. 2014–Jun. 2016
- Member at Fire Dance Club Sep. 2014–May. 2015
Detailed explanation of what you do in this event