

Yao-Chih Lee

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Research Interests

3D Computer Vision, View Synthesis, Image/Video Synthesis and Processing, Structure-from-Motion/SLAM

Experience

University of Maryland, College Park

Ph.D. in Computer Science

College Park, MD

Sep. 2022–present

- Advisor: Jia-Bin Huang
- Topic: 3D computer vision and video synthesis

Adobe Research

Research Intern

San Jose, CA

May 2023–Nov. 2023

- Mentors: Feng Liu, Zhoutong Zhang, Kevin Matzen, Simon Niklaus, Jianming Zhang.
- Topic: Efficient dynamic view synthesis of casual videos (15-min training and 27-fps rendering, under-reviewed)

Academia Sinica

Research Assistant

Taipei, Taiwan

Sep. 2020–Mar. 2022

- Supervisor: Chu-Song Chen
- Topic: 3D computer vision

National Taiwan University

M.S. in Computer Science and Information Engineering

Taipei, Taiwan

Sep. 2018–Jun. 2020

- Thesis: “3D Video Stabilization with Depth Estimation by CNN-based Optimization” [CVPR2021]
- Cumulative GPA: 4.24/4.3

National Chiao Tung University

B.S. in Computer Science

Hsinchu, Taiwan

Sep. 2014–Jun. 2018

- Cumulative GPA: 4.14/4.3

Publications

1. **Yao-Chih Lee**, Ji-Ze Genevieve Jang, Yi-Ting Chen, Elizabeth Qiu, Jia-Bin Huang, “Shape-aware Text-driven Layered Video Editing,” **CVPR**, 2023. [[webpage](#), [arxiv](#)]
2. Ting-Hsuan Liao, Songwei Ge, Yiran Xu, **Yao-Chih Lee**, Badour AlBahar, Jia-Bin Huang, “Text-driven Visual Synthesis with Latent Diffusion Prior,” *arXiv:2302.08510*, 2023. [[webpage](#), [arxiv](#)]
3. **Yao-Chih Lee**, Kuan-Wei Tseng, Guan-Sheng Chen, Chu-Song Chen, “Globally Consistent Video Depth and Pose Estimation with Efficiency,” *arXiv:2208.02709*, 2022. [[arxiv](#)]
4. Kuan-Wei Tseng, **Yao-Chih Lee**, Chu-Song Chen, “Artistic Style Novel View Synthesis Based on A Single Image,” **CVPRW**, 2022. [[pdf](#)]
5. **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,” **CVPR**, 2021. [[webpage](#), [pdf](#)]
6. 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,” **ICIP**, 2021. [[pdf](#)]
7. 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,” **CVPRW**, 2021. [[pdf](#)]

Awards and Achievements

- **Reviewer**, CVPR 2023, ICCV 2023, Pattern Recognition, Computer Vision and Image Understanding
- **Academic Achievement Award** × 4