

Educations

09.2022 - Present	University of Maryland College Park
Ph.D. Student	Advisor Jia-Bin Huang
Computer Science	GPA 4.0 / 4.0
09.2018 - 06.2020	National Taiwan University
Master of Science	Advisor Yi-Ping Hung
Computer Science and Information Engineering	Thesis 3D Video Stabilization with Depth Estimation by CNN-based Optimization (in CVPR 2021)
	Committee Yung-Yu Chuang, Yu-Chiang Frank Wang, Chu-Song Chen, Kuan-Wen Chen
	GPA 4.24 / 4.3
09.2014 - 06.2018	National Chiao Tung University (now National Yang Ming Chiao Tung University)
Bachelor of Science	Major Network and Multimedia Program
Computer Science	GPA 4.14 / 4.3 (Rank: 1st / 50)

Work Experience

06.2024 - 10.2024	Google in Cambridge, MA
Student Researcher	
05.2023 - 11.2023	Adobe in San Jose, CA
Research Intern	Investigated a new algorithm of fast novel view synthesis for casual videos (ECCV 2024)
09.2020 - 03.2022	Academia Sinica in Taipei, Taiwan
Research Assistant	Investigated an image restoration algorithm for medical CT images and other projects related to 3D computer vision.
09.2018 - 06.2020	National Taiwan University in Taipei, Taiwan
Graduate Research Assistant	Investigated video stabilization algorithms with deep learning approaches (CVPR 2021 and ICIP 2021). Collaborated with MediaTek, Inc.
08.2016 - 06.2018	National Chiao Tung University in Hsinchu, Taiwan
Undergraduate Research Assistant	Developed a vision-based drone autopilot system and investigated learning-based local features for SLAM systems.

Publications

Featured

2024	Fast View Synthesis of Casual Videos with Soup-of-Planes
ECCV	Yao-Chih Lee, Zhoutong Zhang, Kevin Blackburn-Matzen, Simon Niklaus, Jianming Zhang, Jia-Bin Huang, and Feng Liu
	webpage · pdf
2023	Shape-aware Text-driven Layered Video Editing
CVPR	Yao-Chih Lee, Ji-Ze Genevieve Jang, Yi-Ting Chen, Elizabeth Qiu, Jia-Bin Huang
	webpage · pdf
2021	3D Video Stabilization with Depth Estimation by CNN-based Optimization
CVPR	Yao-Chih Lee, Kuan-Wei Tseng, Yu-Ta Chen, Chien-Cheng Chen, Chu-Song Chen and Yi-Ping Hung
	webpage · pdf

Others and preprints

2024	VividDream: Generating 3D Scene with Ambient Dynamics
arXiv preprint	Yao-Chih Lee, Yi-Ting Chen, Andrew Wang, Ting-Hsuan Liao, Brandon Y. Feng, Jia-Bin Huang
	webpage · pdf
2023	Improved Contrastive Unpaired Translation for Metal Artifacts Reduction in Nasopharyngeal CT Images
CAI	Yu-Hsing Hsieh, Jia-Da Li, Yao-Chih Lee, Chu-Song Chen, LiFu Wu, and Skye H Cheng
	IEEE Conference on Artificial Intelligence · pdf
2023	Text-driven Visual Synthesis with Latent Diffusion Prior
arXiv preprint	Ting-Hsuan Liao, Songwei Ge, Yiran Xu, Yao-Chih Lee, Badour AlBahar, Jia-Bin Huang
	webpage · pdf
2022	Artistic Style Novel View Synthesis Based on A Single Image
CVPRW	Kuan-Wei Tseng, Yao-Chih Lee, Chu-Song Chen
	CVPR Workshop · webpage · pdf
2022	Globally Consistent Video Depth and Pose Estimation with Efficiency
arXiv preprint	Yao-Chih Lee, Kuan-Wei Tseng, Guan-Sheng Chen, Chu-Song Chen
	pdf · code
2021	PixStabNet: Fast Multi-Scale Deep Online Video Stabilization with Pixel-based Warping
ICIP	Yu-Ta Chen, Kuan-Wei Tseng, Yao-Chih Lee, Chun-Yu Chen, Yi-Ping Hung
	IEEE International Conference on Image Processing · pdf
2021	Part-aware Measurement for Robust Multi-View Multi-Human 3D Pose Estimation and Tracking
CVPRW	Hau Chu, Jia-Hong Lee, Yao-Chih Lee, Ching-Hsien Hsu, Jia-Da Li, Chu-Song Chen
	CVPR Workshop · pdf
2018	A Design of Vision-based Navigation System for the Visually Impaired
TAICHI	Ping-Jung Duh, Yu-Cheng Sung, Yao-Chih Lee, Kuan-Wen Chen, Liang-Yu Fan Chiang
	The Conference of Taiwan Computer-Human Interaction (TAICHI)
2017	A UAV Autopilot System for Sports Player Tracking
TAICHI	Yu-Cheng Sung, Yao-Chih Lee, Sarah Wang, Wei-Ting Hu, Kuan-Wen Chen
	The Conference of Taiwan Computer-Human Interaction (TAICHI)

Honors and Awards

09.2014 - 06.2017	Academic Achievement Awards at NCTU
Award	Awarded 4 times to top 5% ranking in the semesters.
05.2017	Undergraduate Project Excellence Award at NCTU
Award	Awarded to the project of a visual-based UAV autopilot system for sports player tracking.
01.2017	Core Course Award at NCTU
Award	Awarded to the top 3 ranking in the core course, Operating System.

Service

2024	Reviewer
	CVPR · ECCV · ACCV · ACM TOMM
2023	Reviewer
	CVPR · ICCV · SIGGRAPH Asia · Computer Vision and Image Understanding
2022	Reviewer
	Pattern Recognition.
2021	Reviewer
	Pattern Recognition.

Teaching

2024	Computer Vision at UMD CMSC426
Teaching Assistant	
2023	Introduction to Data Science at UMD CMSC320
Teaching Assistant	
2022	Introduction to Artificial Intelligence at UMD CMSC421
Teaching Assistant	
2021	3D Computer Vision with Deep Learning Applications at NTU CSIE5429
Teaching Assistant	
2019	Digital Image Processing at NTU CSIE5612
Teaching Assistant	Probability at NTU CSIE2121
2018	Computer Vision for UAV Autopilot at NCTU DCP1249
Teaching Assistant	