

# Ting-Hsuan Liao

☎ (+1) 240-854-2620 | ✉ ting1129@umd.edu | 🏠 tinghiao.github.io | 📄 TingHLiao | 🌐 TingHLiao

## Education

### University of Maryland

PH.D IN COMPUTER SCIENCE

Advisor: Prof. [Jia-Bin Huang](#)

Overall GPA: 4.0 / 4.0

College Park, US

Sept. 2022 ~ June 2027 (exp.)

### National Tsing Hua University

B.S. IN COMPUTER SCIENCE

Advisor: Prof. [Chun-Yi Lee](#)

Overall GPA: 4.17 / 4.30, cumulative ranking: 9/142

Hsinchu, Taiwan

Sept. 2018 ~ June 2022

## Experience

### Adobe Research | Research Intern

Mentor: Uttaran Bhattacharya

Design new algorithms for text to human motion generation.

May 2024 ~ Nov. 2024

### Intel Corporation | Research Intern

Mentor: Ilke Demir

Design new algorithms for texture synthesis for 3D scene.

June 2023 ~ Dec. 2023

### ELSA Lab at National Tsing Hua University | Research Assistant

Mentors: Chun-Yi Lee

Conduct research toward Computer Vision (CV) and Reinforcement Learning (RL). (BMVC 2022, CVPRW 2022, IROS 2022)

Spring 2020 ~ Spring 2022

## Publications

### PAD3R: Pose-Aware Dynamic 3D Reconstruction from Casual Videos

- [Ting-Hsuan Liao](#), Haowen Liu, Yiran Xu, Songwei Ge, Gengshan Yang, Jia-Bin Huang.
- SIGGRAPH Asia 2025 (Conference track)

### Bridging Diffusion Models and 3D Representations: A 3D Consistent Super-Resolution Framework

- Yi-Ting Chen, [Ting-Hsuan Liao](#), Pengsheng Guo, Alex Schwing, Jia-Bin Huang.
- ICCV 2025

 pdf

### Shape My Moves: Text-Driven Shape-Aware Synthesis of Human Motions

- [Ting-Hsuan Liao](#), Yi Zhou, Yu Shen, Chun-Hao Paul Huang, Saayan Mitra, Jia-Bin Huang, Uttaran Bhattacharya.
- CVPR 2025

 pdf,  website

### VividDream: Generating 3D Scene with Ambient Dynamics

- Yao-Chih Lee, Yi-Ting Chen, Andrew Wang, [Ting-Hsuan Liao](#), Brandon Y. Feng, Jia-Bin Huang.
- arXiv preprint

 pdf,  website

### Text-driven Visual Synthesis with Latent Diffusion Prior

- [Ting-Hsuan Liao](#), Songwei Ge, Yiran Xu, Yao-Chih Lee, Badour AlBahar, Jia-Bin Huang.
- arXiv preprint

 pdf,  website

## ELDA: Using Edges to Have an Edge on Semantic Segmentation Based UDA

- **Ting-Hsuan Liao**, Huang-Ru Liao, Shan-Ya Yang, Jie-En Yao, Li-Yuan Tsao, Hsu-Shen Liu, Chen-Hao Chao, Bo-Wun Cheng, Chia-Che Chang, Yi-Chen Lo, Chun-Yi Lee.
- BMVC 2022, CVPRW 2022

 pdf

## Investigation of Factorized Optical Flows as Mid-Level Representations

- Hsuan-Kung Yang, Tsu-Ching Hsiao, **Ting-Hsuan Liao**, Hsu-Shen Liu, Li-Yuan Tsao, Tzu-Wen Wang, Shan-Ya Yang, Yu-Wen Chen, Huang-Ru Liao, Chun-Yi Lee.
- IROS 2022

 pdf

## Pixel-Wise Prediction based Visual Odometry via Uncertainty Estimation

- Hao-Wei Chen, **Ting-Hsuan Liao**, Hsuan-Kung Yang, Chun-Yi Lee.
- WACV 2023

 pdf

## Honors & Awards

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2022	<b>Dean's Fellowship for Incoming Ph.D Student of University of Maryland,</b>
2021	<b>Computer Science Senior Project Contest - Finalists</b> , 12 out of 77 teams
2021	<b>National Scholarship of Pan Wen-Yuan Foundation</b> , 12 out of the country
2021-2019	<b>Academic Achievement Award (Five times)</b> , top 5% of class
2021	<b>Scholarship for EECS Excellent Students</b> , 6 out of 144 students

## Service

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2025	<b>Reviewer</b> , CVPR, CVPRW, ICCV, SIGGRAPH Asia, TPAMI
2024	<b>Reviewer</b> , CVPR, ECCV
2023	<b>Reviewer</b> , CVPR
2022	<b>Reviewer</b> , ECCV

## Teaching

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### Multimodal Foundation Models at UMD

Fall 2025

Teaching Assistant

### Computer Vision at UMD

Spring 2024

Teaching Assistant

### Discrete Structures at UMD

Fall 2023

Teaching Assistant

### Introduction to Data Science at UMD

Fall 2022 and Spring 2023

Teaching Assistant

### Logic Design Laboratory at NTHU

Fall 2020 and Fall 2021

Teaching Assistant

### National Tsing Hua University

Spring 2021

Academic Counselor