Tsai-Shien Chen

■ tsaishienchen@gmail.com | 🏕 tsaishien-chen.github.io | 💆 @tsaishien_chen | 🞓 Tsai-Shien Chen

Education

University of California, Merced

Merced, CA

PH.D. CANDIDATE IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Sep. 2022 - Now

- Advised by Ming-Hsuan Yang
- GPA: 4.00 / 4.00

National Taiwan University

Taipei, Taiwan

M.S. IN ELECTRONICS ENGINEERING

Sep. 2019 - March 2022

- · Advised by Shao-Yi Chien
- GPA: 4.30 / 4.30; Rank: 1st / 128

B.S. IN ELECTRICAL ENGINEERING

Sep. 2015 - June 2019

• GPA: 4.23 / 4.30; Rank: 5th / 190

Research Interests

- Video Generation: Dataset, Foundation model, and Application
- Multimodal Large Language Model
- Personalized Content Creation

Honors & Awards

- 2025 **Google PhD Fellowship**, Google
- 2024 **CVPR Highlight Paper**, CVPR Program Committee
- 2024 Graduate Student Opportunity Program Fellowship (full tuition), UC Merced
- 2024 **CVPR Travel Grant**, CVPR Organizing Committee
- 2023 Best Master Thesis of the Year Award, Graduate Institute of Electronics Engineering, NTU
- 2022 Honorary Member (top 2% in college), Phi Tau Phi Scholastic Honor Society
- 2020 **ECCV Oral Paper**, ECCV Program Committee
- 2019 **Valedictorian**, Department of Electrical Engineering, NTU
- 2015-2019 4-time Presidential Award (top 5% in department), NTU

Work Experiences ____

Snap Inc. Santa Monica, CA

RESEARCH INTERN AT CREATIVE VISION TEAM

May 2023 - Now

- Worked with Aliaksandr Siarohin, Sergey Tulyakov, Jun-Yan Zhu, and Kfir Aberman.
- Worked on large-scale video dataset and video captioning, generation, and personalization models.
- Published four papers with one in CVPR 2025, one in EMNLP 2024, and two in CVPR 2024.

Publications

Conference Proceedings

1. Multi-subject Open-set Personalization in Video Generation [Paper] [Website]

Tsai-Shien Chen, Aliaksandr Siarohin, Willi Menapace, Yuwei Fang, Kwot Sin Lee, Ivan Skorokhodov, Kfir Aberman, Jun-Yan Zhu, Ming-Hsuan Yang, Sergey Tulyakov *CVPR 2025*

2. VIMI: Grounding Video Generation through Multi-modal Instruction [Paper] [Website]

Yuwei Fang, Willi Menapace, Aliaksandr Siarohin, **Tsai-Shien Chen**, Kuan-Chien Wang, Ivan Skorokhodov, Graham Neubig, Sergey Tulyakov

EMNLP 2024 [Main Conference]

3. Panda-70M: Captioning 70M Videos with Multiple Cross-Modality Teachers [Paper] [Website]

Tsai-Shien Chen, Aliaksandr Siarohin, Willi Menapace, Ekaterina Deyneka, Hsiang-wei Chao, Byung Eun Jeon, Yuwei Fang, Hsin-Ying Lee, Jian Ren, Ming-Hsuan Yang, Sergey Tulyakov *CVPR 2024*

4. Snap Video: Scaled Spatiotemporal Transformers for Text-to-Video Synthesis [Paper] [Website]

Willi Menapace, Aliaksandr Siarohin, Ivan Skorokhodov, Ekaterina Deyneka, **Tsai-Shien Chen**, Anil Kag, Yuwei Fang, Aleksei Stoliar, Elisa Ricci, Jian Ren, Sergey Tulyakov

CVPR 2024 [Highlight, 2.8% acceptance rate]

5. Incremental False Negative Detection for Contrastive Learning [Paper]

Tsai-Shien Chen, Wei-Chih Hung, Hung-Yu Tseng, Shao-Yi Chien, Ming-Hsuan Yang *ICLR* 2022

6. Hard Samples Rectification for Unsupervised Cross-domain Person Re-identification [Paper]

Chih-Ting Liu, Man-Yu Lee, **Tsai-Shien Chen**, Shao-Yi Chien *ICIP 2021*

7. Tracklet-Refined Multi-Camera Tracking Based on Balanced Cross-Domain Re-Identification for Vehicles [Paper]

Kai-Siang Yang, Yu-Kai Chen, **Tsai-Shien Chen**, Chih-Ting Liu, Shao-Yi Chien *CVPR Workshops 2021*

8. Orientation-aware Vehicle Re-identification with Semantics-guided Part Attention Network [Paper] [Website]

Tsai-Shien Chen, Chih-Ting Liu, Chih-Wei Wu, Shao-Yi Chien

ECCV 2020 [Oral, 2.1% acceptance rate]

9. Viewpoint-Aware Channel-Wise Attentive Network for Vehicle Re-Identification [Paper]

Tsai-Shien Chen, Man-Yu Lee, Chih-Ting Liu, Shao-Yi Chien

CVPR Workshops 2020

10. Supervised Joint Domain Learning for Vehicle Re-Identification [Paper]

Chih-Ting Liu, Man-Yu Lee, Chih-Wei Wu, Bo-Ying Chen, **Tsai-Shien Chen**, Yao-Ting Hsu, Shao-Yi Chien *CVPR Workshops 2019*

Pre-prints

1. LayerComposer: Interactive Personalized T2I via Spatially-Aware Layered Canvas [Paper] [Website]

Guocheng Qian, Ruihang Zhang, **Tsai-Shien Chen**, Yusuf Dalva, Anujraaj Goyal, Willi Menapace, Ivan Skorokhodov, Meng Dong, Arpit Sahni, Daniil Ostashev, Ju Hu, Sergey Tulyakov, Kuan-Chieh Wang *arXiv* 2025

2. Motion-Conditioned Diffusion Model for Controllable Video Synthesis [Paper] [Website]

Tsai-Shien Chen, Chieh Hubert Lin, Hung-Yu Tseng, Tsung-Yi Lin, Ming-Hsuan Yang *arXiv 2023*

Patents

 $1. \ \ \, \textbf{Captioning Videos with Multiple Cross-Modality Teachers} \, [\texttt{Link}]$

Tsai-Shien Chen, Yuwei Fang, Hsin-Ying Lee, Jian Ren, Aliaksandr Siarohin, Sergey Tulyakov *US* 2025/0247586 A1

2. Scaled Spatiotemporal Transformers for Text-to-Video Synthesis [Link]

Tsai-Shien Chen, Yuwei Fang, Anil Kag, Willi Menapace, Jian Ren, Aliaksandr Siarohin, Ivan Skorokhodov, Sergey Tulyakov *US* 2025/0245897 A1

Professional Activities

Program Committee - **AAAI**: 2026

Conference Reviewer - CVPR: 2022 - 2026; ICCV: 2021 - 2025; ECCV: 2022 - 2024; WACV: 2026

- NeurIPS: 2023 - 2025; ICLR: 2024 - 2026; ICML: 2024 - 2025

- **ACMMM**: 2025

Journal Reviewer - IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)

- IEEE Transactions on Image Processing (TIP)- International Journal of Computer Vision (IJCV)

Teaching Assistant - UC Merced: CSE-185 **Introduction to Computer Vision** (Spring 2023)

- UC Merced: CSE-024 **Advanced Programming** (Fall 2022)

- NTU: EEE-5053 Computer Vision (Spring 2021)