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
- Compositional and 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. **Omni-Attribute: Open-vocabulary Attribute Encoder for Visual Concept Personalization** [Paper] [Website]
Tsai-Shien Chen, Aliaksandr Siarohin, Guocheng Gordon Qian, Kuan-Chieh Jackson Wang, Egor Nemchinov, Moayed Haji-Ali, Riza Alp Guler, Willi Menapace, Ivan Skorokhodov, Anil Kag, Jun-Yan Zhu, Sergey Tulyakov
arXiv preprint 2025

2. **Canvas-to-Image: Compositional Image Generation with Multimodal Controls** [Paper] [Website]
Yusuf Dalva, Guocheng Gordon Qian, Maya Goldenberg, **Tsai-Shien Chen**, Kfir Aberman, Sergey Tulyakov, Pinar Yanardag, Kuan-Chieh Jackson Wang
arXiv preprint 2025

3. **LayerComposer: Multi-Human Personalized Generation via Layered Canvas** [Paper] [Website]
Guocheng Gordon Qian, Ruihang Zhang, **Tsai-Shien Chen**, Yusuf Dalva, Anujraaj Argo Goyal, Willi Menapace, Ivan Skorokhodov, Meng Dong, Arpit Sahni, Daniil Ostashev, Ju Hu, Sergey Tulyakov, Kuan-Chieh Jackson Wang
arXiv preprint 2025

4. **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 preprint 2023

Patents

1. **Captioning Videos with Multiple Cross-Modality Teachers** [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)