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 Mukesh Singhal
- 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
- Controllable and Personalized Visual 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 *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. **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
   CVPR 2026

2. **AlcheMinT: Fine-grained Temporal Control for Multi-Reference Consistent Video Generation** [Paper] [Website]
   Sharath Girish, Viacheslav Ivanov, **Tsai-Shien Chen**, Hao Chen, Aliaksandr Siarohin, Sergey Tulyakov
   CVPR 2026

3. **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

4. **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]

5. **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

6. **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]

7. **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

8. **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

9. **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

10. **Orientation-aware Vehicle Re-identification with Semantics-guided Part Attention Network** [Paper]
Tsai-Shien Chen, Chih-Ting Liu, Chih-Wei Wu, Shao-Yi Chien
ECCV 2020 [Oral, 2.1% acceptance rate]

11. **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

12. **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. **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

2. **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

3. **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
US12489956B2

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
US20250245897A1

Professional Activities

Invited Talks	- **AI Time** (Dec 2025): From Personalization Models towards Movie Generator [Link]
	- **Anuttacon** (July 2025): Learning Video Generation and Personalization from Large-Scale Datasets
Program Committee	- **AAAI**: 2026
Conference Reviewer	- **CVPR**: 2022-2026; **ICCV**: 2021-2025; **ECCV**: 2022-2026
	- **NeurIPS**: 2023-2025; **ICLR**: 2024-2026; **ICML**: 2024-2026
	- **SIGGRAPH**: 2026; **ACMMM**: 2025-2026
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)