

Tsai-Shien Chen

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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. **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: Interactive Personalized T2I via Spatially-Aware 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
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

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|---------------------|---|
| 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) |