

# 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	<b>Google PhD Fellowship</b> , Google
2024	<b>CVPR Highlight Paper</b> , CVPR Program Committee
2024	<b>Graduate Student Opportunity Program Fellowship (full tuition)</b> , UC Merced
2024	<b>CVPR Travel Grant</b> , CVPR Organizing Committee
2023	<b>Best Master Thesis of the Year Award</b> , Graduate Institute of Electronics Engineering, NTU
2022	<b>Honorary Member (top 2% in college)</b> , Phi Tau Phi Scholastic Honor Society
2020	<b>ECCV Oral Paper</b> , ECCV Program Committee
2019	<b>Valedictorian</b> , Department of Electrical Engineering, NTU
2015-2019	<b>4-time Presidential Award (top 5% in department)</b> , 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	- <b>AAAI</b> : 2026
Conference Reviewer	- <b>CVPR</b> : 2022 - 2026; <b>ICCV</b> : 2021 - 2025; <b>ECCV</b> : 2022 - 2024; <b>WACV</b> : 2026 - <b>NeurIPS</b> : 2023 - 2025; <b>ICLR</b> : 2024 - 2026; <b>ICML</b> : 2024 - 2025 - <b>ACMMM</b> : 2025
Journal Reviewer	- IEEE Transactions on Pattern Analysis and Machine Intelligence ( <b>TPAMI</b> ) - IEEE Transactions on Image Processing ( <b>TIP</b> ) - International Journal of Computer Vision ( <b>IJCV</b> )
Teaching Assistant	- UC Merced: CSE-185 <b>Introduction to Computer Vision</b> (Spring 2023) - UC Merced: CSE-024 <b>Advanced Programming</b> (Fall 2022) - NTU: EEE-5053 <b>Computer Vision</b> (Spring 2021)