

# Tsai-Shien Chen

[✉ tsaishienchen@gmail.com](mailto:tsaishienchen@gmail.com) | [🏡 tsaishien-chen.github.io](https://tsaishien-chen.github.io) | [@tsaishien\\_chen](https://twitter.com/tsaishien_chen) | [👤 Tsai-Shien Chen](https://orcid.org/0000-0002-1111-1111)

## Education

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### 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

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- Video Generation: Dataset, Foundation model, and Application
- Controllable and Personalized Visual Content Creation
- Multimodal Model

## Honors & Awards

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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

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### 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

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### 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. **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  
*arXiv preprint 2025*
3. **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*
4. **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*
5. **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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- Invited Talks
- **AI Time** (Dec 2025): From Personalization Models towards Movie Generator [[Link](#)]
  - **Anuttaccon** (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 - 2024; **WACV**: 2026
  - **NeurIPS**: 2023 - 2025; **ICLR**: 2024 - 2026; **ICML**: 2024 - 2026
  - **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)