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 models, and Application models
- Multimodal Large Language Model
- Personalized Content Creation

Honors & Awards

- 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. 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 2023

6. Incremental False Negative Detection for Contrastive Learning [Paper]

Tsai-Shien Chen, Wei-Chih Hung, Hung-Yu Tseng, Shao-Yi Chien, Ming-Hsuan Yang ICI R 2022

7. Hard Samples Rectification for Unsupervised Cross-domain Person Re-identification [Paper]

Chih-Ting Liu, Man-Yu Lee, **Tsai-Shien Chen**, Shao-Yi Chien

8. 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

9. 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]

10. 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

11. 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

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 - Association for the Advancement of Artificial Intelligence (AAAI): 2026

- Conference Reviewer Conference on Computer Vision and Pattern Recognition (CVPR): 2022, 2023, 2024, 2025
 - International Conference on Computer Vision (ICCV): 2021, 2023, 2025
 - European Conference on Computer Vision (ECCV): 2022, 2024
 - Winter Conference on Applications of Computer Vision (WACV): 2026
 - Conference on Neural Information Processing Systems (NeurIPS): 2023, 2024, 2025
 - International Conference on Learning Representations (ICLR): 2024, 2025
 - International Conference on Machine Learning (ICML): 2024, 2025
 - ACM Multimedia (ACMMM): 2025

Journal Reviewer

- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Image Processing (TIP)
- Neurocomputing (**Neucom**)

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)