Tsai-Shien Chen

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Education

University of California, Merced *Merced, CA*
PH.D. IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE *Aug. 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, Architecture, and Applications
- Vision-Language Models
- Image Animation

Publications List

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
   arXiv preprint, 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] (Acceptance Rate: 2.8%)**

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

6. **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

7. **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

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] (Acceptance Rate: 2.1%)**

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

Work Experiences

Research Intern at Snap Inc.
Santa Monica, CA
May 2023 - Now
- Work with Aliaksandr Siarohin, Sergey Tulyakov, Jun-Yan Zhu, and Kfir Aberman.
- Work on large-scale video dataset and video captioning, generation, and personalization models.
- Publish four papers with two in CVPR 2024, one in EMNLP 2024, and one under review.

Visiting Researcher at UC Merced & Google
Virtual
Dec. 2020 - May 2021
- Work with Ming-Hsuan Yang and Hung-Yu Tseng.
- Work on contrastive learning algorithm for representation learning.
- Publish one paper in ICLR 2022.

Honors & Awards

2024	**CVPR Highlight Paper (2.8% acceptance rate)**, CVPR Program Committee
2024	**Graduate Student Opportunity Program Fellowship (2 awardees annually in university)**, 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 (2.1% acceptance rate)**, ECCV Program Committee
2019	**Valedictorian**, Department of Electrical Engineering, NTU
2015-2019	**4-time Presidential Award (top 5% in department)**, NTU

Professional Activities

Program Committee	- Association for the Advancement of Artificial Intelligence (**AAAI**): 2025
Conference Reviewer	- Conference on Computer Vision and Pattern Recognition (**CVPR**): 2022, 2023, 2024
	- International Conference on Computer Vision (**ICCV**): 2021, 2023
	- European Conference on Computer Vision (**ECCV**): 2022, 2024
	- Asian Conference on Computer Vision (**ACCV**): 2024
	- Conference on Neural Information Processing Systems (**NeurIPS**): 2023, 2024
	- International Conference on Learning Representations (**ICLR**): 2024, 2025
	- International Conference on Machine Learning (**ICML**): 2024, 2025
Journal Reviewer	- IEEE Transactions on Intelligent Transportation Systems (**T-ITS**)
	- Neurocomputing
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)