Chi-Pin Huang

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Latest update: 2025/04/01

EDUCATION

National Taiwan University

Ph.D. in Computer Vision, Data Science Group Advisor: Prof. Yu-Chiang Frank Wang

• Researching vision-language generative models (e.g., Vision-Language Models (VLMs), Diffusion Models)

National Taiwan University

B.S. in Computer Science and Information Engineering | GPA: 4.11/4.30

• Relevant Experience: Machine Learning Foundations/Techniques (TA, Fall 2020), Machine Learning (TA, Spring 2021), Deep Learning for Computer Vision (TA, Fall 2022), Applied Deep Learning (NLP topic, Spring 2021)

PUBLICATIONS

[1] <u>Chi-Pin Huang</u>, Yen-Siang Wu, Hung-Kai Chung, Kai-Po Chang, Fu-En Yang, Yu-Chiang Frank Wang, "VideoMage: Multi-Subject and Motion Customization of Text-to-Video Diffusion Models", *in Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern (CVPR), 2025.* [pdf] [website]

- Proposed a unified framework that *first* enables multi-subject and motion customization of T2V diffusion models
- Introduced novel appearance-agnostic motion learning via negative guidance to remove appearance interference
- Developed Spatial-Temporal Collaborative Composition scheme to generate videos with desired properties

[2] <u>Chi-Pin Huang</u>^{*}, Kai-Po Chang^{*}, Chung-Ting Tsai, Yung-Hsuan Lai, Fu-En Yang, Yu-Chiang Frank Wang, "Receler: Reliable Concept Erasing of Text-to-Image Diffusion Models via Lightweight Erasers", *in Proceedings of the European conference on computer vision (ECCV), 2024.* [pdf] [website] [code]

- · Enforced robustness against rephrased and adversarial prompts by proposed adversarial prompt learning scheme
- Achieved locality by concept-localized regularization for precise erasure without affecting non-target concepts

[3] Yu-Chu Yu, <u>Chi-Pin Huang</u>, Jr-Jen Chen, Kai-Po Chang, Yung-Hsuan Lai, Fu-En Yang, Yu-Chiang Frank Wang, "Select and Distill: Selective Dual-Teacher Knowledge Transfer for Continual Learning on Vision-Language Models", *in Proceedings of the European conference on computer vision (ECCV)*, 2024. [pdf] [website] [code]

- · Advanced Selective Dual-Teacher scheme to mitigate catastrophic forgetting in VLMs
- · Utilized both pre-trained and latest VLMs to preserve zero-shot capabilities and previous fine-tuned knowledge

[4] Kai-Po Chang, <u>Chi-Pin Huang</u>, Wei-Yuan Cheng, Fu-En Yang, Chien-Yi Wang, Yung-Hsuan Lai, Yu-Chiang Frank Wang, "Reinforced Rationale-Prompted Paradigm for Natural Language Explanation in Visual Question Answering", *in Proceedings of the International Conference on Learning Representation (ICLR)*, 2024. [pdf]

- Mitigated implausibility and hallucination issues in Large Vision Language Models (LVLMs)
- · Proposed reinforcement learning with answer-explanation feedback as rewards for hallucination-free generation

INDUSTRY EXPERIENCE	
NVIDIA Research	Taipei, Taiwan
Research Intern	02/2025 - Present
Researching multi-subject and motion customization in text-to-video diffusion models	
• The research paper, VideoMage, has been accepted at CVPR 2025 (acceptance rate: 22.1%)	

Microsoft

Applied Scientist Intern

Taipei, Taiwan 07/2021 – 06/2022

• Developed end-to-end pipeline for training attention-based confidence model, achieving 4x faster deployment

• Designed active learning algorithm for direction query tagging with transformers, reducing labeling costs by 70%

• Paper "Active Learning for Transformer in Direction Query Tagging" was accepted by ACM SIGSPATIAL 2022

Taipei, Taiwan 09/2022 – Present

sion Models)

Taipei, Taiwan 09/2018 – 06/2022