Chi-Pin Huang

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EDUCATION

National Taiwan University Taipei, Taiwan
Ph.D. in Computer Vision, Data Science Group 09/2022 – Present
Advisor: Prof. Yu-Chiang Frank Wang

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

National Taiwan University Taipei, Taiwan
B.S. in Computer Science and Information Engineering | GPA: 4.11/4.30 09/2018 – 06/2022

- 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] **Chi-Pin Huang***, 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]

- Utilized lightweight adapter-based Eraser (0.37% of U-Net parameters) for efficient erasing
- 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

[2] Yu-Chu Yu, **Chi-Pin Huang**, 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

[3] Kai-Po Chang, **Chi-Pin Huang**, 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 modern Large Vision Language Models (LVLMs)
- Generated intermediate rationales through knowledge distillation from text-only LLM to enhance plausibility
- Proposed reinforcement learning with answer-explanation feedback as rewards for hallucination-free generation

WORK EXPERIENCE

NVIDIA Research Taipei, Taiwan
Research Intern 02/2025 – Present

- Researching multi-subject and motion customization in text-to-video diffusion models
- The related paper, "VideoMage," has been accepted at *CVPR 2025* (acceptance rate: 22.1%)

Microsoft Taipei, Taiwan
Applied Scientist Intern 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%
- Published "Active Learning for Transformer Models in Direction Query Tagging" at *ACM SIGSPATIAL 2022*

TECHNICAL SKILLS

- **Programming Languages**: Python, C/C++, Java, SQL, MATLAB, OpenMP, OpenCL, CUDA
- **Machine Learning**: PyTorch, Transformers, Diffusers, Accelerate, Pytorch-Lightning