JINRUI YANG

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RECENT RESEARCH INTERESTS

My current research interests lie in the field of Generative Models and Multimodal Large Language Model.

EDUCATION

University of California, Santa Cruz, CA, U.S. Ph.D. student in Computer Science	2023.8 – Now
Sun Yat-sen University , Guangzhou, China <i>M.E.</i> in Computer Technology	2019.9 – 2021.6
Sichuan University, Chengdu, China B.E. in Software Engineering	2015.9 – 2019.6
Work Experience	

Research Intern. San Jose, USA

2024.06 - present

Research Intern

Project 1: Generative Image Layer Decomposition with Visual Effects: Designed **LayerDecomp**, a layered image decomposition method that preserves transparent visual effects and enables fine-grained editing, powered by a scalable synthetic dataset pipeline, resulting in a paper accepted at CVPR 2025.

Project 2: Unified Layer Aware Image Generation with Visual Effects: Developing a layered image generation framework for controllable RGBA synthesis with realistic visual effects, along with a supporting dataset.

Tencent YouTu Lab. Shanghai, China

2021.07 - 2023.08

Research Scientist, Full-time

Duties included:

- 1) Building robust vision perception models for different business scenarios.
- 2) Applying large multimodal models to downstream visual tasks in the real-world.
- 3) Building the comprehensive evaluation benchmark for MLLMs, MME. which is widely adopted by main-stream multimodality models(e.g., LLaVA family models, Qwen-VL family models, InternVL family models, etc).

Tencent YouTu Lab. Shanghai, China

2020.05 - 2020.10

Research Intern

Duties included: Conducted research on person re-identification, resulting in a paper accepted at ICCV 2021.

PUBLICATIONS

- 1. **Jinrui Yang**, Qing Liu, Yijun Li, Soo Ye Kim, Daniil Pakhomov, Mengwei Ren, Jianming Zhang, Zhe Lin, Cihang Xie, Yuyin Zhou. Generative Image Layer Decomposition with Visual Effects. **CVPR 2025**. Project page.
- 2. **Jinrui Yang**, Xianhang Li, Druv Pai, Yuyin Zhou, Yi Ma, Yaodong Yu, Cihang Xie. Scaling White-Box Transformers for Vision. **NeurIPS 2024**. Project page.
- 3. **Jinrui Yang**, Jiawei Zhang, Fufu Yu, Xinyang Jiang, mengdan zhang,Xing Sun,Yingcong Chen, Wei-Shi Zheng. Learning to Know Where to See: A Visibility-Aware Approach for Occluded Person Re-identification. **ICCV 2021**. Paper.
- 4. **Jinrui Yang**, Wei-Shi Zheng, Qize Yang, Yingcong Chen, Qi Tian. Spatial-Temporal Graph Convolutional Network for Video-based Person Re-identification. **CVPR 2020**. Paper.
- 5. Chaoyou Fu, Peixian Chen, Yunhang Shen, Yulei Qin, Mengdan Zhang, Xu Lin, **Jinrui Yang**, Xiawu Zheng, Ke Li, Xing Sun, Yunsheng Wu, Rongrong Ji. MME: A Comprehensive Evaluation Benchmark for Multimodal Large Language Models. **Arxiv**, 2023. Paper.
- 6. Yuqiao Xian, **Jinrui Yang**, Fufu Yu, Jun Zhang, Xing Sun. Graph-Based Self-Learning for Robust Person Re-identification. **WACV 2023**. Paper.
- 7. Jiaming Zhou, Junwei Liang, Kun-Yu Lin, **Jinrui Yang**, Wei-Shi Zheng. ActionHub: A Large-scale Action Video Description Dataset for Zero-shot ActionRecognition. **Arxiv**, **2024**. Paper.

ACADEMIC ACTIVITIES

Journal Reviewer: TIP, TCSVT, TMM

Conference Reviewer: NeurIPS2025, CVPR2025, ICML2024, CVPR 2024, WACV 2023, WACV 2025.