

Xuan JU

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EDUCATION

The Chinese University of Hong Kong

Hong Kong SAR, China

- Ph.D. candidate in Computer Science and Engineering (CSE)

Supervisor: Prof. Qiang Xu

2022 - 2026

Tongji University

Shanghai, China

- B.S. in Computer Science; Minor Degree in Mathematics and Applied Mathematics

GPA: 4.85/5.00. Top 1%

2018 - 2022

SELECTED PUBLICATIONS

(* denotes equal contribution)

- **FullDiT: Video Generative Foundation Models with Multimodal Control via Full Attention**
Xuan Ju, Weicai Ye, Quande Liu, Qiulin Wang, Xintao Wang, Pengfei Wan, Di Zhang, Kun Gai, Qiang Xu
Under Review
- **Teletubbies: On Design Choices of Scaling Autoregressive Models for Image Generation**
Yushi Hu*, Xuan Ju*, Xu Ma*, Yujun Shi*, Xiaoliang Dai, Peizhao Zhang, Jialiang Wang, Ji Hou, Yen-Cheng Liu, Haochen Zhang, Tao Xu, Felix Juefei-Xu, Ching-Yao Chuang, Zecheng He, Junjiao Tian, Tingbo Hou, Peter Vajda, Qiang Xu, Yun Fu, Vincent Y. F. Tan, Mari Ostendorf, Noah A. Smith, Zijian He, Sam Tsai, Kunpeng Li, Chih-Yao Ma
Under Review
- **MiraData: A Large-Scale Video Dataset with Long Durations and Structured Captions**
Xuan Ju*, Yiming Gao*, Zhaoyang Zhang*, Ziyang Yuan, Xintao Wang, Ailing Zeng, Yu Xiong, Qiang Xu, Ying Shan
Conference on Neural Information Processing Systems (**NeurIPS**), 2024
- **BrushNet: A Plug-and-Play Image Inpainting Model with Decomposed Dual-Branch Diffusion**
Xuan Ju, Xian Liu, Xintao Wang, Yuxuan Bian, Ying Shan, Qiang Xu
European Conference on Computer Vision (**ECCV**), 2024 (**Github Star 1.5K**)
- **PnP Inversion: Boosting Diffusion-based Editing with 3 Lines of Code**
Xuan Ju, Ailing Zeng, Yuxuan Bian, Shaoteng Liu, Qiang Xu
International Conference on Learning Representations (**ICLR**), 2024.
- **HumanSD: A Native Skeleton-Guided Diffusion Model for Human Image Generation**
Xuan Ju*, Ailing Zeng*, Chenchen Zhao*, Jianan Wang, Lei Zhang, Qiang Xu
Proceedings of the IEEE International Conference on Computer Vision (**ICCV**), 2023. (**Oral**)
- **Human-Art: A Versatile Human-Centric Dataset Bridging Natural and Artificial Scenes**
Xuan Ju*, Ailing Zeng*, Jianan Wang, Qiang Xu, Lei Zhang
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023.
- **Multi-Patch Prediction: Adapting LLMs for Time Series Representation Learning**
Yuxuan Bian*, Xuan Ju*, Jiangtong Li, Zhijian Xu, Dawei Cheng, Qiang Xu
International Conference on Machine Learning (**ICML**), 2024.

WORKING EXPERIENCE

- **Adobe Research** California, America
Research Intern. Supervisor: Soo Ye Kim, Zhe Lin
Topic: Multimodal Models, Video Generation
Mar. 2025 - Sep. 2025
- **Kling, Kuaishou** Shenzhen, China
Research Intern. Supervisor: Weicai Ye, Xintao Wang
Topic: Multimodal Models, Video Generation
Dec. 2024 - Mar. 2025
- **Llama Applied, Gen AI, Meta** California, America
Research Intern. Supervisor: Kevin Chih-Yao Ma
Topic: **Working on Llama4**, Multimodal Models, Image Generation
Jul. 2024 - Dec. 2024
- **Tencent ARC Laboratory** Shenzhen, China
Research Intern. Supervisor: Ying Shan, Xintao Wang
Topic: Image Inpainting, Video Generation
Oct. 2023 - Jun. 2024
- **International Digital Economy Academy (IDEA) CVR** Shenzhen, China
Research Intern. Supervisor: Lei Zhang, Ailing Zeng
Topic: Human-Centric Image Generation
Jun. 2022 - Sep. 2023
- **SenseTime Research X-Lab** Shenzhen, China
Research Intern. Supervisor: Lei Yang
Topic: Human Pose Estimation
Dec. 2021 - May. 2022

MISCELLANEOUS

- **Research Interests:** My research targets to build multi-modal agents with image/video generation and editing ability on scalable big data. Specifically, my works encompass multimodal image/video generation, large-scale dataset construction, and controllable image generation:
 - 1) Multimodal Image/Video Generation: Llama4, Teletubbies, FullDiT;
 - 2) Large-scale Image/Video Datasets: MiraData, Human-Art;
 - 3) Controllable Image Generation Models: BrushNet, PnP Inversion, HumanSD.
- **Conference/Journal Reviewer:** CVPR, ECCV, ICCV, ICLR, NeurIPS, ICML, TPAMI, IJCV, etc.
- **Workshop Organization:** 2nd Workshop on Efficient and On-Device Generation (EDGE), CVPR

SELECTED HONORS & AWARDS

- **National Scholarship** 2020, 2021
- **QiDi Scholarship** 2022
- **Outstanding Graduate, Shanghai Province** 2022
- **First Prize in “Challenge Cup” National College Students Contest** 2022