
Zihao Zhang

Master's Student at Fudan University · Advisor: Prof. Zuxuan Wu
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EDUCATION

Sep 2023 — Jun 2026

Fudan University

Master's Degree · Shanghai, China
School of Computer Science · Advisor: Prof. Zuxuan Wu

Sep 2018 — Jun 2022

Wuhan University

Bachelor's Degree · Wuhan, China
School of Chemistry and Molecular Sciences

RESEARCH EXPERIENCE

Apr 2025 — Mar 2026 Research Intern · Bilibili Inc.

Virtual Human Group · Image and Video Generation · Shanghai, China

SPEED: One-Step Pixel Diffusion for High-quality Video Frame Interpolation — Co-first author, ACM MM 2026

Led model design, training optimization, and experimental validation. Proposed a one-step pixel-space diffusion framework to address detail loss from latent compression and the cost of multi-step sampling. Designed a progressive multi-stage DiT, Noise-Update-Only Attention, and Drift-aware Timestep Sampling. SPEED runs 63.3% faster with 10.6% lower memory usage than prior diffusion baselines, supports 4K interpolation, and substantially improves high-frequency detail fidelity.

CT-1: Vision-Language-Camera Models for Camera-Controllable Video Generation — Co-first author, ACM MM 2026

Contributed to the Vision-Language-Camera model, training-data pipeline, and video-generation system. Transferred spatial reasoning from vision-language models to camera-trajectory prediction and video diffusion. Helped construct CT-200K with more than 47 million frames, improving camera-control accuracy by 25.7% over prior methods.

Jul 2024 — Mar 2025 Research Intern · Huawei

Noah's Ark Lab · Image and Video Generation · Shanghai, China

EDEN: Enhanced Diffusion for High-quality Large-motion Video Frame Interpolation — First author, CVPR 2025

Led framework design, training, and evaluation. Introduced a Transformer Tokenizer to strengthen intermediate-frame representations, together with temporal attention and start/end-frame difference conditioning in the Diffusion Transformer. EDEN improves spatiotemporal consistency under complex nonlinear motion, reducing LPIPS by nearly 10% on DAVIS and SNU-FILM and by about 8% on the high-resolution DAIN-HD benchmark.

MotionFollower: Editing Video Motion via Lightweight Score-Guided Diffusion — Third author, ICCV 2025

Contributed to diffusion-based video motion editing with lightweight pose and appearance controllers and dual-branch score guidance. The method preserves subject appearance and background consistency while modifying motion, reduces GPU memory usage by approximately 80%, and supports large human and camera motions.

Publications

- 01 **EDEN: Enhanced Diffusion for High-quality Large-motion Video Frame Interpolation**
Zihao Zhang, Haoran Chen, Haoyu Zhao, Guansong Lu, Yanwei Fu, Hang Xu, Zuxuan Wu
CVPR 2025
- 02 **SPEED: One-Step Pixel Diffusion for High-quality Video Frame Interpolation**
Zihao Zhang*, Haoyu Zhao*, Siqian Yang, Yidi Wu, Yudong Jiang, Zuxuan Wu
ACM MM 2026
- 03 **CT-1: Vision-Language-Camera Models Transfer Spatial Reasoning Knowledge to Camera-Controllable Video Generation**
Haoyu Zhao*, Zihao Zhang*, Jiaxi Gu, Haoran Chen, Qingping Zheng, Pin Tang, Yeying Jin, Yuang Zhang, Junqi Cheng, Zenghui Lu, Peng Shu, Zuxuan Wu, Yu-Gang Jiang
ACM MM 2026
- 04 **MotionFollower: Editing Video Motion via Lightweight Score-Guided Diffusion**
Shuyuan Tu, Qi Dai, Zihao Zhang, Sicheng Xie, Zhi-Qi Cheng, Chong Luo, Xintong Han, Zuxuan Wu, Yu-Gang Jiang
ICCV 2025
- 05 **VIDiff: Translating Videos via Multi-Modal Instructions with Diffusion Models**
Zhen Xing, Qi Dai, Zihao Zhang, Hui Zhang, Han Hu, Zuxuan Wu, Yu-Gang Jiang
arXiv:2311.18837, 2023
- 06 **AniME: Adaptive Multi-Agent Planning for Long Animation Generation**
Lisai Zhang, Baohan Xu, Siqian Yang, Mingyu Yin, Jing Liu, Chao Xu, Siqi Wang, Yidi Wu, Yuxin Hong, Zihao Zhang, Yanzhang Liang, Yudong Jiang
SIGGRAPH Asia 2025 Posters
- 07 **EVA: Enhancing Anime Video Generation via Reinforcement Learning**
Yidi Wu, Bingwen Zhu, Zihao Zhang, Siqian Yang, Lisai Zhang, Baohan Xu, Mingyu Yin, Yanzhang Liang, Yudong Jiang
ICASSP 2026