Jiaxu Zhang (张嘉旭)

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I am a **Ph.D. student** under the supervision of Prof. Deren Li and Prof. Zhigang Tu at **Wuhan University**. I am also a **Joint-Ph.D. student** at **Nanyang Technological University** supervised by Prof. Guosheng Lin.
Currently, I am a research intern at **ByteDance**, focusing on **AIGC and MLLM**. Previously, I interned at **Tencent** from 2022 to 2024, and at **StepFun** from 2024 to 2025, where I was advised by Dr. Gang Yu.
My research interest lies in computer vision and graphics, with a current focus on **Multimodal AIGC, Interactive 2D/3D animation, video/motion generation, retargeting, and recognition**. **Expected graduation in June 2026.**

EDUCATION

Nanyang Technological University — Singapore
Joint-Ph.D. Student. Computer Science and Technology — Feb. 2025 – Now
- Sponsored by China Scholarship Council (CSC).

Wuhan University — Wuhan, Hubei
Ph.D. Student. Computer Science and Technology — Sep. 2020 – Now
- **NSFC Basic Research Project for Youth Scholars (¥300,000).**
- **Leijun Scholarship 2023. ¥100,000. Top 0.1‰.** National Scholarship 2022. ¥20,000. Top 3%.

Southeast University — Nanjing, Jiangsu
Bachelor of Science. Geographic Information Science — Sep. 2016 – Jun. 2020
- GPA: 3.9/4.0, Avg Score: 91.9/100, Rank: 1/26.
- National Scholarship 2018. ¥10,000, Top 3%. Outstanding Graduates of Southeast University, 2020, Top 3%.

SELECTED PUBLICATIONS

Video & Multimodal Generation

Bridging Your Imagination with Audio-Video Generation via a Unified Director
Jiaxu Zhang, Tianshu Hu, Yuan Zhang, Zenan Li, Linjie Luo, Guosheng Lin, Xin Chen. ***(ArXiv, 2025.12)***

DreamDance: Animating Character Art via Inpainting Stable Gaussian Worlds
Jiaxu Zhang, Xianfang Zeng, Xin Chen, Wei Zuo, Gang Yu, Guosheng Lin, Zhigang Tu. ***(ArXiv, 2025.04)***

MikuDance: Animating Character Art with Mixed Motion Dynamics
Jiaxu Zhang, Xianfang Zeng, Xin Chen, Wei Zuo, Gang Yu, Zhigang Tu.
International Conference on Computer Vision ***(ICCV 2025, Oral)***

3D Animation & 3D Motion Synthesis

TapMo: Shape-aware Motion Generation of Skeleton-free Characters
Jiaxu Zhang, Shaoli Huang, Zhigang Tu, et. al.
The Twelfth International Conference on Learning Representations ***(ICLR 2024)***

Generative Motion Stylization of Cross-structure Characters within Canonical Motion Space
Jiaxu Zhang, Xin Chen, Gang Yu, Zhigang Tu.
Proceedings of the 32nd ACM International Conference on Multimedia ***(ACM MM 2024)***

Skinned Motion Retargeting with Residual Perception of Motion Semantics & Geometry
Jiaxu Zhang, Junwu Weng, Di Kang, et. al.
Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition ***(CVPR 2023)***

A Modular Neural Motion Retargeting System Decoupling Skeleton and Shape Perception
Jiaxu Zhang, Zhigang Tu, Junwu Weng, Junsong Yuan, Bo Du.
IEEE Transactions on Pattern Analysis and Machine Intelligence, 2024 ***(T-PAMI, IF: 24.314)***

3D Motion Recognition

Zoom Transformer for Skeleton-based Group Activity Recognition
Jiaxu Zhang, Yifan Jia, Wei Xie, and Zhigang Tu.
IEEE Transactions on Circuits and Systems for Video Technology, 2022 ***(T-CSVT, IF: 8.400)***

EXPERIENCE

NSFC Basic Research Project for Youth Scholars (¥300,000) Jan. 2025 – Dec. 2027

- Research topic: Generative Virtual Human Animation with Mixed Multi-Modality Guidance.

Character Art Animation Project on Lipu app Jun. 2024 – Dec. 2024

- We propose MikuDance, a diffusion-based pipeline incorporating mixed motion dynamics to animate stylized character art.
- I am the first author of the paper, and the proposed model has been launched on the Lipu.

Tencent AI Lab Rhino-Bird Research Program Jul. 2022 – Jun. 2023

- Research topic: motion retargeting with consideration of self-contact and self-penetration. We propose an end-to-end model for motion semantics and geometry perception without the need of pairwise motion data. The research paper has been accepted by CVPR 2023 and T-PAMI 2024. I am the first author.
- This project received the Tencent Technology Innovation Award.

The 1st runner-up of ICCV 2021 MMVRAC challenge (Track 2 and Track 3) Jul. 2021

- I am the team leader of Track 2 (skeleton-based human action recognition). We propose a multi-stream graph convolutional network for action recognition.
- I am a co-author of the paper "The Multi-Modal Video Reasoning and Analyzing Competition, *ICCVW, 2021*."