# 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 interning at StepFun, collaborating with Dr. Gang Yu and focusing on AIGC research. Before that, I worked as a research intern at Tencent from 2022 to 2024. My research interest lies in computer vision and graphics, with a current focus on 3D/2D animation, video/motion generation, retargeting, and recognition. Expected graduation in 2026.

## **EDUCATION** =

## Nanyang Technological University

Joint-Ph.D. Student. Computer Science and Technology Sponsored by China Scholarship Council (CSC).

## Wuhan University

Ph.D. Student. Computer Science and Technology

- 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**

Bachelor of Science. Geographic Information Science

- 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 –**

MikuDance: Animating Character Art with Mixed Motion Dynamics Jiaxu Zhang, Xianfang Zeng, Xin Chen, Wei Zuo, Gang Yu, Zhigang Tu. (ArXiv, 2024)

## **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)

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)

## Joint-bone Fusion Graph Convolutional Network for Semi-supervised Skeleton Action Recognition Zhigang Tu#, Jiaxu Zhang#, Hongyan Li, Yujin Chen, and Junsong Yuan. IEEE Transactions on Multimedia, 2022 (T-MM, IF: 8.182)

## — EXPERIENCE —

#### NSFC Basic Research Project for Youth Scholars (¥300,000) Research topic: Generative Virtual Human Animation with Mixed Multi-Modality Guidance.

Jan. 2025 – Dec. 2027

Feb. 2025 – Now

Singapore

Wuhan, Hubei Sep. 2020 – Now

Nanjing, Jiangsu Sep. 2016 – Jun. 2020



## **Character Art Animation Project on Lipu app**

- 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 have been launched on the Lipu app.

## Tencent AI Lab Rhino-Bird Research Program

- 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)

- 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."

Jul. 2022 – Jun. 2023

Jul. 2021