Jiaxu Zhang (张嘉旭)

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I am a **Ph.D. student** advised by Prof. Deren Li and Prof. Zhigang Tu at LIESMARS, **Wuhan University**, China. Prior to this, I obtained my B.S. degree from **Southeast University** in 2020. I served as a **research intern at Tencent AI Lab** in 2023, collaborating with Dr. Shaoli Huang and Dr. Junwu Weng.
My research interests encompass deep learning, 3D computer vision, and computer graphics. Currently, my focus is on **motion generation, retargeting, and synthesis**. My overarching research objective is to contribute to the development of lifelike, intelligent, and interactive virtual avatars.

EDUCATION

Wuhan University — Wuhan, Hubei
Master degree and Ph.D. Student. Computer Science and Technology — Sep. 2020 – Now

- Leijun Scholarship 2023. 100,000 RMB. Top 10 in Wuhan University.
- National Scholarship 2022. 20,000 RMB. Top 3%.
- First-class Scholarship for Outstanding Students 2021. 8,000 RMB. Top 10%.

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 RMB, Top 3%. Outstanding Graduates of Southeast University, 2020, Top 3%.
- Research assistant in associate Prof. Xiao Fu's lab.

SELECTED PUBLICATIONS

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)***

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)***

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. ***(Top SCI, IF: 8.182)***

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. ***(Top SCI, IF: 8.400)***

EXPERIENCE

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

- Research topic: motion retargeting with consideration of self-contact and self-penetration.
- I am the primary contributor to this program, engaging in technical research, model design, and code implementation. The research paper has been accepted by CVPR 2023.
- We propose a residual retargeting model (R^2ET) that can preserve the source motion semantics and avoid interpenetration in the target motion.

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

- As the team leader of Track 2 (skeleton-based human action recognition), my responsibilities included data processing, model design and model implementation. In Track 3 (fisheye video-based action recognition), I played a key role as one of the main contributors in model implementation. https://sutdcv.github.io/multi-modal-video-reasoning/#/leaderboard
- I am a co-author of the paper "The Multi-Modal Video Reasoning and Analyzing Competition, *ICCVW, 2021*."