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)***

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 ═══

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.

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.
- I am a co-author of the paper "The Multi-Modal Video Reasoning and Analyzing Competition, *ICCVW, 2021*."