ZEKUN LI

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EDUCATION

Brown University **Providence, RI, USA**
Ph.D. Student, Computer Science August 2023 - June 2028 (expected)
Supervisor: Prof. Srinath Sridhar
Research Area: Human Behavior Modeling, Vision Content Customization

University of Electronic Science and Technology of China **Chengdu, Sichuan, China**
Bachelor of Engineering with honor, Computer Science and Technology September 2019 - July 2023
GPA: 3.78/4.0
UESTC Outstanding Undergraduate Thesis Awards

PUBLICATION

LLaMo: Scaling Pretrained Language Models for Unified Motion Understanding and Generation with Continuous Autoregressive Tokens
Under Review
Zekun Li, Sizhe An, Chengcheng Tang, chuan guo, Ivan Shugurov, Linguang Zhang, Amy Zhao, Srinath Sridhar, Lingling Tao, Abhay Mittal
TL;DR: propose a generic framework to extend pretrained LLMs for human motion generation and understanding, while preserving the original text-only performance via a modality-specific Mixture-of-Transformers (MoT).

EgoReAct: Egocentric Video-Driven 3D Human Reaction Generation
Under Review
Libo Zhang, Zekun Li, Tianyu Li, Zeyu Cao, Rui Xu, Xiao-Xiao Long, Wenjia Wang, Jingbo Wang, Yuan Liu, Wenping Wang, Daquan Zhou, Taku Komura, Zhiyang Dou
TL;DR: propose a real-time ego-perception driven human reaction generation model and a motion dataset with spatial aligned ego-video.

PackUV: Packed Gaussian UV Maps for 4D Volumetric Video
Under Review
Aashish Rai, Angela Xing, Anushka agarwal, Xiaoyan Cong, Zekun Li, Tao Lu, Aayush Prakash, Srinath Sridhar
TL;DR: propose a new volumetric video representation and the largest multi-view 4D dataset.

GenHSI: Controllable Generation of Human-Scene Interaction Videos
Accepted by IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2026
Zekun Li, Rui Zhou, Rahul Sajnani, Xiaoyan Cong, Daniel Ritchie, Srinath Sridhar
TL;DR: propose chain-of-frame prompting for VDM to generate plausible HSI videos without training.

Surf-D: Generating High-Quality Surfaces of Arbitrary Topologies Using Diffusion Models
Accepted by European Conference on Computer Vision (ECCV) 2024
Zhengming Yu, Zhiyang Dou, Xiaoxiao Long, Cheng Lin, Zekun Li, Yuan Liu, Norman Müller, Taku Komura, Marc Habermann, Christian Theobalt, Xin Li, Wenping Wang
TL;DR: design a novel UDF-based latent diffusion model for shape generation.

MANUS: Markerless Grasp Capture using Articulated 3D Gaussians
Accepted by IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR) 2024
Chandradeep Pokhariya, Ishaan Nikhil Shah, Angela Xing, Zekun Li, Kefan Chen, Avinash Sharma, Srinath Sridhar
TL;DR: provide a new multi-view grasping dataset with contact annotation and articulated Gaussian hand model for the benchmark.

Learning Anchor Transformations for 3D Garment Animation
Accepted by IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR) 2023
Fang Zhao, Zekun Li, Shaoli Huang, Junwu Weng, Tianfei Zhou, Guosen Xie, Jue Wang, Ying Shan
TL;DR: design adaptive anchors to predict 3D garment animation from a body motion sequence.

Eliminating Gradient Conflict in Reference-based Line-Art Colorization
Accepted by European Conference on Computer Vision (ECCV) 2022
Zekun Li, Zhengyang Geng, Zhao Kang, Wenyu Chen, and Yibo Yang
TL;DR: design a novel BP scheme to solve the gradient issue in Attention.

EXPERIENCE

Meta Reality Lab *Research Intern*
May 2025 - August 2025 Supervisor: Abhay Mittal
♢ Project: Unified Human Motion Language Model with Continuous-Token Autoregressive
- Proposed an unified motion-language large model trained from LLM while preserving the language performance.
- Adopting continuous token autoregressive to achieve high-fidelity motion generation with real-time streaming.

Honda Research Institute *Research Intern*
June 2024 - August 2024 Supervisor: Enna Sachdeva
♢ Project: Uncertainty-aware Human-Object Interaction Tracking from Monocular Video
- Proposed an autoregressive tracking method for the poses of the human and object with uncertainty.
- Leveraging the visibility and physics constraints for post-sampling to eliminate the accumulated error in human-object interaction tracking.

AI Lab, Tencent *Research Intern*
October 2022 - June 2023 Supervisor: Prof. Fang Zhao
♢ Project: Learning-based Garment Animation [repo]
- Reproduced *VirtualBones* (SIGGRAPH'22) and *TailorNet* (CVPR'20) on virtual try-on dataset.
- Proposed an anchor-based deformation model to predict 3D garment animation from a body motion sequence, which achieves the state-of-the-art performance, especially for loose-fitting garments.

Cognitive Computing and Intelligent Decision Lab, UESTC *Research Assistant*
September 2020 - September 2022 Supervisor: Prof. Zhao Kang
♢ Project: Reference-based line-art colorization [repo]
- Proposed a novel gradient backpropagating scheme for dot-product Attention to solve gradient conflicts.
- Attained significant improvements in Fréchet Inception Distance (FID, up to 27.21%) and structural similarity index measure (SSIM, up to 25.67%) on several benchmarks.

PaddlePaddle Open Source Community, Baidu *Contributor of PaddleVideo*
April 2022 - June 2022
♢ Group Project: Contributed Human Pose Estimation project to PaddleVideo (a video toolkit). [repo]
- Responsible for *2s-AGCN* (CVPR'19) implementation and merging the project into PaddleVideo's.
- Won the third prize (¥10,000) in *6th Paddle Reproduction Competition*.

SELECTED AWARDS

UESTC Outstanding Undergraduate Thesis Top1%
UESTC Honor Undergraduate Student in Research Top1%

PROFESSIONAL SERVICE

Conference Reviewer: CVPR 2024, SIGGRAPH 2024, ECCV2024, AAAI2025, ICLR2025
Google explore CSR: Ph.D. mentor 2024

SKILLS

Python: Pytorch; C/C++; Blender; LaTeX