

Shunlin Lu

Ph.D. Student

Computer Science, The Chinese University of Hongkong (Shenzhen)

EDUCATION

Homepage: <https://shunlinlu.github.io/>

Email: shunlinlu0803@gmail.com

 GitHub, Google Scholar

- **The Chinese University of Hongkong, Shenzhen (CUHK-SZ)**

P.R. China

09/2023 - now

Ph.D. Student of Computer Science

Supervisor: [Prof. Ruimao Zhang](#) and [Prof. Benyou Wang](#)

Research: Humanoid Robot, Character Animation, Multi-Modal Motion Generation/Understanding

- **University of Southern California (USC)**

The U.S.

09/2019 - 01/2022

Master of Electrical Engineering

GPA: 3.87/4.0; **Viterbi Honor Student**

Supervisor: [Dr. Souvik Kundu \(Intel AI lab\)](#)

Research: energy-efficient, robust, and privacy-aware machine learning for computer vision

- **Wuhan University of Technology**

P.R. China

09/2015 - 06/2019

Bachelor of Electrical Information Engineering

GPA: 3.65/5.0; top 5%

INTERNSHIP

- **International Economy Digital Academy (IDEA Research)**

P.R. China

Computer Vision Research Intern, Computer Vision and Robotics Center

Supervisor: [Dr. Ailing Zeng](#), and [Dr. Lei Zhang](#)

project: Human-centric Multi-Modal learning

- **Shanghai Artificial Intelligence Laboratory**

P.R. China

05/2024 - now

Research Intern, Embodied AI Center

Supervisor: [Dr. Jingbo Wang](#)

project: Humanoid Robots, Character Animation

PREPRINTS

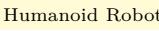
- **HumanPerformer: Synthesizing a Long Motion Sequence from a Story with a Text2Motion Retriever**

Ling-Hao CHEN*, **Shunlin Lu***, Yukai Shi, Ailing Zeng, Ruimao Zhang, Lei Zhang

Arxiv preprint 2024

[[video1](#)] | [[video2](#)] | [[retrieval demo](#)]

- **Behavior Foundation Model for Humanoid Robots (Submit to ICRA 2025)**

Weishuai Zeng, **Shunlin Lu**, Kangning Yin, Jingbo Wang, Jiangmiao Pang 

Arxiv preprint 2025

PUBLICATIONS

- **MotionLLM: Understanding Human Behaviors from Human Motions and Videos**

Ling-Hao CHEN*, **Shunlin Lu***, Ailing Zeng, Hao Zhang, Benyou Wang, Ruimao Zhang, Lei Zhang

T-pami 2025   

[[paper](#)] | [[preprint](#)] | [[project page](#)] | [[code](#)]

- **ARMO: Autoregressive Rigging for Multi-Category Objects**

Mingze Sun, Shiwei Mao, Keyi Chen, Yurun Chen, **Shunlin Lu**, Jingbo Wang, Junting Dong, Ruqi Huang

International Conference on Computer Vision (ICCV 2025) 

[[preprint](#)]

- **Go to Zero: Towards Zero-shot Motion Generation with Million-scale Data**

Ke Fan, **Shunlin Lu**, Minyue Dai, Runyi Yu, Lixing Xiao, Zhiyang Dou, Junting Dong, Lizhuang Ma, Jingbo Wang

International Conference on Computer Vision (ICCV 2025)  

[[preprint](#)] | [[github](#)]

MotionStreamer: Streaming Motion Generation

- **via Diffusion-based Autoregressive Model in Causal Latent Space**

Lixing Xiao, **Shunlin Lu**, Huajin Pi, Ke Fan, Liang Pan, Yueer Zhou

Ziyong Feng, Xiaowei Zhou, Sida Peng, Jingbo Wang

International Conference on Computer Vision (ICCV 2025) 

[[paper](#)] | [[preprint](#)] | [[project page](#)] | [[code](#)] | [[Motion Representation](#)]

- **ScaMo: Exploring the Scaling Law in Autoregressive Motion Generation Model**

Shunlin Lu, Jingbo Wang, Zeyu Lu, Ling-Hao Chen, Wenxun Dai, Junting Dong, Zhiyang Dou Bo Dai, Ruimao Zhang

Conference on Computer Vision and Pattern Recognition (CVPR 2025) 

[[paper](#)] | [[preprint](#)] | [[project page](#)] | [[code](#)]

- **HumanTOMATO: Text-aligned Whole-body Motion Generation**
Shunlin Lu*, Ling-Hao CHEN*, Ailing Zeng, Jing Lin, Ruimao Zhang, Lei Zhang, Heung-Yeung Shum
International Conference on Machine Learning (ICML 2024) motion
[\[paper\]](#) | [\[preprint\]](#) | [\[project page\]](#) | [\[code\]](#) | [\[video\]](#) | [\[retrieval demo\]](#)
- **Motion-x: A large-scale 3d expressive whole-body human motion dataset**
Jing Lin*, Ailing Zeng*, **Shunlin Lu***, Yuanhao Cai, Ruimao Zhang, Haoqian Wang, Lei Zhang
Advances in Neural Information Processing Systems (NeurIPS 2023) motion
[\[paper\]](#) | [\[preprint\]](#) | [\[project page\]](#) | [\[code\]](#) | [\[visualization\]](#) | [\[video1\]](#) | [\[video2\]](#)
- **Learning to linearize deep neural networks for secure and efficient private inference**
Souvik Kundu*, **Shunlin Lu***, Yuke Zhang, Jacqueline T.Liu, Peter A.Beerel
International Conference on Learning Representations (ICLR 2023) Efficient Learning
[\[paper\]](#) | [\[preprint\]](#)
- **Sparse mixture once-for-all adversarial training**
- **for efficient in-situ trade-off between accuracy and robustness of dnns**
Souvik Kundu, Sairam Sundaresan, Sharath Nittur Sridhar, **Shunlin Lu**, Han Tang, Peter A. Beerel
International Conference on Acoustics, Speech and Signal Processing (ICASSP 2023) Efficient Learning
[\[paper\]](#) | [\[preprint\]](#)
- **P2M-DeTrack: Processing-in-Pixel-in-Memory**
- **for Energy-efficient and Real-Time Multi-Object Detection and Tracking**
Gourav Datta, Souvik Kundu, Zihan Yin, Joe Mathai, Zeyu Liu, Zixu Wang, **Shunlin Lu**, Ravi Lakkireddy, Andrew Schmidt, Wael Abd-Almageed, Ajey Jacob, Akhilesh Jaiswal, Peter Beerel
IFIP/IEEE 30th International Conference on Very Large Scale Integration (VLSI-SoC 2022) Efficient Learning
[\[paper\]](#) | [\[preprint\]](#) (*best paper nomination*)

HONORS AND AWARDS

- Honored graduate student of Viteibi School of USC (less than 5%) Jan. 2023
- First-Class Scholarship of WHUT university Dec. 2017
- First-Class Scholarship of WHUT university Dec. 2016