

Shunlin Lu

First-year Ph.D. Student

Computer Science, The Chinese University of Hongkong (Shenzhen)

EDUCATION

- **The Chinese University of Hongkong, Shenzhen (CUHK-SZ)** P.R. China
First-year Ph.D. Student of Computer Science 09/2023 - now
Supervisor: [Prof. Ruimao Zhang](#) and [Prof. Benyou Wang](#)
Research: Multi-Modal LLMs, Character Animation, Motion Generation/Understanding, and Machine Learning
- **University of Southern California (USC)** The U.S.
Master of Electrical Engineering 01/2020 - 01/2023
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
Bachelor of Electrical Information Engineering 09/2015 - 06/2019
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 01/2023 - 09/2023
Supervisor: [Dr. Ailing Zeng](#), and [Dr. Lei Zhang](#)
project: Human-centric Multi-Modal learning

PREPRINTS

- **MotionLLM: Understanding Human Behaviors from Human Motions and Videos**
Ling-Hao CHEN*, **Shunlin Lu***, Ailing Zeng, Hao Zhang, Benyou Wang, Ruimao Zhang, Lei Zhang
Arxiv preprint 2024 [video](#) [LLM](#) [motion](#)
[\[paper\]](#) | [\[preprint\]](#) | [\[project page\]](#) | [\[code\]](#)
- **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 [LLM](#) [motion](#)
[\[video1\]](#) | [\[video2\]](#) | [\[retrieval demo\]](#)

PUBLICATIONS

- **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 Vitebi School of USC** (less than 5%) Jan. 2023
- **First-Class Scholarship of WHUT university** Dec. 2017
- **First-Class Scholarship of WHUT university** Dec. 2016