Shunlin Lu

First-year Ph.D. Student

Computer Science, The Chinese University of Hongkong (Shenzhen)

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↗ GitHub, Google Scholar

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 Engeering — 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 Engeering — 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 - 05/2024
  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 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*