

Jiachen Lu

Major: Computer Science / Statistics / Electronic and Computer Engineering

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PhD Student, Computer and Communication Sciences, EPFL, Switzerland

Keywords: Wireless Sensing, Autonomous Driving, Transformer, 2D/3D generation

EDUCATION

•Swiss Federal Technology Institute of Lausanne (EPFL)

PhD in Computer Science

From 2024.09

Instructor: Prof. Haitham Al Hassanieh

•Fudan University

Master student of Statistics

2021.09-2024.09

Instructor: Dr. Li Zhang

•Shanghai Jiao Tong University

B.Eng. in Electronic and Computer Engineering

2017.09 - 2021.08

GPA: 3.67, Ranking: 11/148

PUBLICATIONS

[1] **Jiachen Lu**, Hailan Shanbhag, Haitham Al Hassanieh. "GeRaF: Neural Geometry Reconstruction from Radio Frequency Signals." In *NeurIPS (Spotlight)*, 2025.

[2] **Jiachen Lu**, ..., Li Zhang. "Translating Images to Road Network: A Sequence-to-Sequence Perspective." *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* (Sep 2025).

[3] Yurui Chen, Junge Zhang, Ziyang Xie, Wenye Li, Feihu Zhang, **Jiachen Lu**, Li Zhang. "S-nerf++: Autonomous driving simulation via neural reconstruction and generation." *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* (June 2025).

[4] Qiang Wan, Zilong Huang, **Jiachen Lu**, Gang Yu, Li Zhang. "SeaFormer++: Squeeze-enhanced axial transformer for mobile visual recognition." *International Journal of Computer Vision (IJCV)* (June 2025).

[5] **Jiachen Lu**, Li Zhang, ..., Philip H. S. Torr. "Vision Transformers: From Semantic Segmentation to Dense Prediction." *International Journal of Computer Vision (IJCV)* (July 2024).

[6] **Jiachen Lu**, Ze Huang, Zeyu Yang, Jiahui Zhang, Li Zhang. "WoVoGen: World Volume-aware Diffusion for Controllable Multi-camera Driving Scene Generation." In *ECCV*, 2024.

[7] **Jiachen Lu**, Junge Zhang, Xiatian Zhu, Jianfeng Feng, Tao Xiang, Li Zhang. "Softmax-free Linear Transformers." *International Journal of Computer Vision (IJCV)* (March 2024).

[8] Jiaqi Chen, Yuxian Jiang, **Jiachen Lu**, Li Zhang. "S-Agent: self-organizing agents in open-ended environment." *ICLR Workshop*. 2024.

[9] Zijie Pan, **Jiachen Lu**, Xiatian Zhu, Li Zhang. "Enhancing High-Resolution 3D Generation through Pixel-wise Gradient Clipping." In *ICLR*. 2024..

[10] **Jiachen Lu**, Renyuan Peng, ..., Li Zhang. "Translating Images to Road Network: A Non-Autoregressive Sequence-to-Sequence Approach." In *ICCV (Oral)*. 2023..

[11] Zheyuan Zhou, **Jiachen Lu**, Yihan Zeng, Hang Xu, Li Zhang. "SUIT: Learning Significance-guided Information for 3D Temporal Detection." In *IROS*, 2023..

[12] Jiaqi Chen, **Jiachen Lu**, Xiatian Zhu, Li Zhang. "Generative Semantic Segmentation." In *CVPR*, 2023..

[13] Qiang Wan, Zilong Huang, **Jiachen Lu**, Gang Yu, Li Zhang. "SeaFormer: Squeeze-enhanced Axial Transformer for Mobile Semantic Segmentation." In *ICLR*, 2023..

[14] **Jiachen Lu**, Zheyuan Zhou, Xiatian Zhu, Hang Xu, Li Zhang. "Learning Ego 3D Representation as Ray Tracing." In *ECCV*, 2022..

[15] **Jiachen Lu**, Jinghan Yao, Junge Zhang, Xiatian Zhu, Hang Xu, Weiguo Gao, Chunjing Xu, Tao Xiang, Li Zhang. "Soft: Softmax-free transformer with linear complexity." In *NeurIPS (Spotlight)*, 2021..

[16] Sixiao Zheng, **Jiachen Lu**, ..., Philip HS Torr, Li Zhang. "Rethinking semantic segmentation from a sequence-to-sequence perspective with transformers." In *CVPR*, 2021.

HONORS AND AWARDS

•National Scholarship for 2018-2019 academic year by Ministry of Education of China 2019

•National Scholarship for 2021-2022 academic year by Ministry of Education of China 2022

•National Scholarship for 2022-2023 academic year by Ministry of Education of China 2023

•Shanghai Outstanding Graduate by Ministry of Education of Shanghai 2021

•Shanghai Outstanding Graduate by Ministry of Education of Shanghai 2024

ACADEMIC SERVICES

•Organizer/Chair CVPR 2023 workshop on End-to-End Autonomous Driving

CVPR 2023, Vancouver

– Workshop Page: <https://e2ead.github.io/>