

Jiawei Ren

✉ jiawei011@e.ntu.edu.sg | 🏠 jiawei-ren.github.io | 🌐 github.com/jiawei-ren

EDUCATION

Ph.D. in Computer Science, *Nanyang Technological University* 2021 - 2025 (expected)

- Advisor: Prof. Ziwei Liu
- Focus: machine learning, computer vision & graphics.

B.Eng in Electrical and Electronic Engineering, *Nanyang Technological University* 2015 - 2019

- Advisor: Prof. Lap-Pui Chau
- Highest Distinction, GPA 4.9/5

RESEARCH INTEREST

My research interest lies in robust learning for 3D perception and generation. I work on modeling 3D objects, humans, and scenes while keeping the learning algorithms robust to the data imbalance, corruptions, and label scarcity in real-world deployments. My ultimate research goal is to build a scalable 3D vision system that can fully digitalize the physical world around us.

PUBLICATION

- [1] Bo Li, Jingkang Yang, **Jiawei Ren**, Yezhen Wang, Ziwei Liu. "Sparse Fusion Mixture-of-Experts are Domain Generalizable Learners". *Preprint*, (2022).
- [2] Lingdong Kong*, **Jiawei Ren***, Liang Pan, Ziwei Liu. "LaserMix for Semi-Supervised LiDAR Semantic Segmentation". *Preprint*, (2022).
- [3] **Jiawei Ren**, Liang Pan, Ziwei Liu. "Benchmarking and Analyzing Point Cloud Classification under Corruptions". *International Conference on Machine Learning (ICML)*, (2022).
- [4] **Jiawei Ren**, Cunjun Yu, Mingyuan Zhang, Ziwei Liu. "Balanced MSE for Imbalanced Visual Regression". *IEEE Conference on Computer Vision and Pattern Recognition (CVPR): Oral*, (2022).
- [5] Zhongang Cai*, Mingyuan Zhang*, **Jiawei Ren***, Chen Wei, Daxuan Ren, Jiatong Li, Zhengyu Lin, Haiyu Zhao, Shuai Yi, Lei Yang, Chen Change Loy, Ziwei Liu. "Playing for 3D Human Recovery". *Preprint*, (2021).
- [6] **Jiawei Ren***, Cunjun Yu*, Zhongang Cai*, Chongsong Chen, Mingyuan Zhang, Haiyu Zhao, Shuai Yi, Hongsheng Li. "REFINE: Prediction Fusion Network for Panoptic Segmentation". *AAAI Conference on Artificial Intelligence (AAAI)*, (2021).
- [7] **Jiawei Ren**, Cunjun Yu, Shunan Sheng, Xiao Ma, Haiyu Zhao, Shuai Yi, Hongsheng Li. "Balanced Meta-Softmax for Long-Tailed Visual Recognition". *Neural Information Processing Systems (NeurIPS)*, (2020).
- [8] Cunjun Yu*, Xiao Ma*, **Jiawei Ren**, Haiyu Zhao, Shuai Yi. "Spatio-Temporal Graph Transformer Networks for Pedestrian Trajectory Prediction". *European Conference on Computer Vision (ECCV)*, (2020).

AWARDS

- Silver Medal, ACM ICPC Jakarta Regional 2021
- AISG PhD Fellowship 2021
- Spotlight, Large Vocabulary Instance Segmentation (LVIS) Challenge 2020
- Champion, COCO Panoptic Segmentation Challenge 2019
- Dean's List (top 5% of the cohort) 2015, 2016, 2018
- Singapore Ministry of Education Engineering & Science Full Scholarship 2014

WORK EXPERIENCE

Algorithm Researcher July 2019 - July 2021

X-Lab @ SenseTime Research, Singapore

- Worked on monocular human mesh recovery, physics-plausible character animation, and image panoptic segmentation.

SERVICE

- Conference: NeurIPS, ICML, ICLR, AAAI, CVPR, ECCV
- Journal: T-PAMI