

1 Education

- Ph.D.**, Australian National University, Australia **2024.01 - 2027.12**
- Supervisor: Prof. Hongdong Li.
 - Research Field: Machine Learning, Computer graphics, Computer Vision, Geometric Deep Learning, Human Motion.
- Master of Machine Learning and Computer Vision**, Australian National University, Australia **2021.08 - 2023.07**
- Thesis topic: Generative Model Approaches for 3D Full-Body Human Pose Reconstruction from Sparse Joint Observations.
- Bachelor of Engineering (Honor)**, University of Sydney, Australia **2018.08 - 2020.06**
- Major in Telecommunication Engineering.
- Bachelor of Engineering**, Harbin Institute of Technology (HIT), China **2016.08 - 2018.06**
- Major in Electrical Engineering and Automation.
 - 2+2 Program with University of Sydney

2 Research Publication

- Zhenyu Li, Xuyang Wang, Junjun Jiang, Xianming Liu, "**BinsFormer: Revisiting Adaptive Bins for Monocular Depth Estimation**". Arxiv. (Submitted to IEEE TIP). [[pdf](#)]
- Tackling the Monocular Depth Estimation task with the first DERT-like decoder structure to perform coarse-to-fine depth maps estimation, on KITTI, NYU, and SUN RGBD datasets.
 - Ranked 1st on KITTI depth estimation benchmark (Feb, 2022).

3 Internship Experience

- Research Intern** **Tencent XR Lab, Canberra, Australia** **2022.08 - 2023.05**
- Project: *3D Human Pose Estimation and Reconstruction from the VR equipment*, supervised by **Prof. Hongdong Li**.
 - The work reconstructs the full body SMPL model from VR headset and controllers' signals with Transformer, VAE, CVAE and diffusion model.
- Software Engineer Intern** **Baidu Inc., Shanghai, China** **2021.11 - 2022.01**
- Project: *3D Points Clouds Tracking for Vehicles*, supervised by the Baidu's Automatic Driving Engineering Group.
 - Developed a 3D points cloud tracking software for NuScenes and Baidu's datasets. The software comprises a point cloud visualization tool, a data preprocessing module, and a neural tracking module with CenterPoints algorithm.
- Software Engineer Intern** **Pushi AI, Haikou, China** **2021.05 - 2021.07**
- Project: *Data Analysis for Cross-Broader E-Commerce*, supervised by the Knowledge Graphs Algorithm Group.
 - Developed a data crawling and analysis software for the project independently.
- Research Intern** **Corerain Technologies, Shenzhen, China** **2019.12 - 2020.02**
- Project: *Deep Learning Acceleration on Hardware*, supervised by Dr. Kuen Hung Tsoi, Dr. Zhiqiang Que.
 - Researched on the topic "Acceleration Potentials for NLP's Algorithms on Hardware Implementation". Specifically, we investigated the parallelism capabilities of arithmetic logic units in RNN, GRU, LSTM and Attention mechanism.

4 Teaching Experience

- Academic Tutor** **Australian National University** **2024.01 - 2024.07**
- Tutored *COMP8610 Computer Graphics* in Semester 1 2024, supervised by Prof. Hongdong Li.
- Academic Tutor** **Australian National University** **2022.08 - 2022.12**
- Tutored *COMP8536 Advanced topics of Deep Learning in Computer Vision* in Semester 2 2022, supervised by Prof. Nick Barnes.

5 Project Experience

- Portrait Background Replacement with Image Matting and Relighting, Australia** 2022.08 - 2022.11
- Course project for COMP6528 Computer Vision. The work designed a novel algorithm for high-fidelity background replacement, composed by human detection, background matting and the portrait relighting modules. A large scale simulation dataset was proposed as well.
- Personality Prediction From What They Say: Semantic Analysis of MBTI, Australia** 2022.03 - 2022.05
- Course project for ENGN8535-Engineering Data Analysis. The work implemented word vectorization and machine learning techniques to inference users' MBTI personalities from their language.
- Pedestrian Tracking for Crowded Scenes with YOLOX, Australia** 2021.09 - 2021.11
- Course project for COMP8536 Deep Learning for Computer Vision. We developed a pedestrian tracking algorithm for crowded scenes with DeepSORT and YOLOx.
- Wireless Signal Modulation Classification with on PCA and UMAP, Australia** 2019.07 - 2020.06
- Bachelor Honor thesis supervised by Prof. Philip Leong. Developed a learning based modulation classifier for GNU radio signals under different noise conditions.
- NASA International Space App Challenge, Australia** 2019.10
- 2019 NASA Space App challenge. Developed an educational app utilising NASA's satellite database. 1st runner up, awarded with the "Local People Choice Winner". [Demo](#)

6 Scholarships

- University Research Scholarship** 2024.01 - 2028.01
- Issued by the Australian National University (College of Computer Science, Engineering and Cybernetics) for International Research Candidates.
 - Associated with ANU HDR Fee Merit Scholarship, covering all tuition fees for Ph.D degree.
- Hex Singapore Program Scholarship** 2023.06 - 2023.07
- Issued by the Australian National University (College of Computer Science, Engineering and Cybernetics), funding for the HEX Singapore program, return airfares, accommodation and A\$200 food allowance.
- Faculty of Engineering and Information Technologies Credit Agreement Scholarship** 2018.08 - 2020.06
- Issued by the University of Sydney.
- Vice Chancellor's Global Mobility Scholarship** 2019.07 - 2019.08
- Summer school program "Global Cities as Center of Knowledge Production" at Humboldt University of Berlin.
 - Issued by the University of Sydney.

7 Miscellaneous

- Pitch Winner, Hex Singapore** 2023.06 - 2023.07
- Winner Pitch at HEX Singapore, with entrepreneurs and industry stakeholders in Singapore.
- Gear Officer, Bush Walk Society of University of Sydney (SUBW)** 2019.03 - 2020.03
- Member in SUBW Committee. Responsible for the hiking equipment management and trip organisation for Kiama Coast and the annual Christmas Walk.
- Museum Guide, HIT Museum, Harbin, China** 2017.10 - 2018.06
- English guiding assistant for Harbin Institute of Technology History Museum.
 - Awarded as the "Best Narrators of 2017" of HIT museum.