

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

- GPA: 6.289/7.0

- 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.