Xuyang **Wang**

POSTGRADUATE AT ANU · MLCV

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Educational History

Australian National University
Canberra, China

MASTER OF MACHINE LEARNING AND COMPUTER VISION (6.289/7.0)
Aug. 2021 - Jul. 2023

- Master thesis: Generative Model Approaches for 3D Full-Body Human Pose Reconstruction from Sparse Joint Observations, advised by Dr.Jing Zhang and Prof.Nick Barnes (Distinguished - 78/100).
- During the first year's summer break, I served as Baidu's software engineering intern in Shanghai.
- At the second year, I servered as research intern at Tencent XR Lab and Academic Tutor for course 'COMP8536 - Advanced Topics in Deep Learning for Computer Vision' in Canberra.

University of Sydney
Sydney, Australia

BACHELOR OF ENGINEERING (HONOR) (72.5/100 - H2A)
Aug. 2018 - June. 2020

- Major in Telecommunication Engineering. Got the second highest mark in a postgrade-level course 'ELEC5507 Error Control Coding' in 2019, 95/100.
- In my final year, I took an internship in Corerain, an AI chips company in Shenzhen as junior engineer. With surrounding by great researchers in the field of configurable and accelerating hardware and computer vision, I decided to do a master degree in the relevant field to advance the computer vision algorithms.
- Being an active member in community, served as Gear Officer at Sydney University Bushwalkers club in 2019.

Harbin Institute of Technology
Harbin, China

BACHELOR OF ENGINEERING
Aug. 2016 - Jun. 2020

- Major in Electrical Engineering and Automation.
- After commencement in August 2016, I selected as one of the twenty students to join the joint bachelor program with University of Sydney in September 2016. And awarded with Credit Agreement Scholarship at University of Sydney from 2018 to 2020, with amount $5000 per annum.
- Being an active member in volunteering work and social society.

Employment History

Tencent XR Lab
Canberra, Australia

RESEARCH INTERN
Aug. 2022 - May. 2023

- Undertook research project: **FPV (First-Person-View) Avatar**, advised by Dr.Xiu Li and Dr.Shihao Jiang, supervised by Prof.Hongdong Li.
- Proposed IMU based solution for FPV Avatar. Built and deployed full body human motion reconstruction with real-time quest controllers and headset input data. Experienced with trasnformer, vae, post-optimisation and diffusion methods for the project and delivered demos with 3D visualization (Python, Pytorch, Pyrender)

Australian National University
Canberra, Australia

TUTOR (CASUAL SESSIONAL ACADEMIC)
Jul. 2022 - Dec. 2022

- Tutored **COMP8536 Advanced topics of Deep Learning in Computer Vision** in Semester 2 2022, supervised by Prof. Nick Barnes.

Baidu Inc.
Shanghai, China

AUTONOMOUS DRIVING DEVELOPMENT AND SOFTWARE ENGINEER INTERN
Mar. 2021 - Sep. 2021

- Delivered research literature review for Monocular Depth Estimation in presentation format.
- Undertook 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 prepossessing module, and a neural tracking module with CenterPoints algorithm (Python, Pytorch).
- Finished an external collaboration work on Monocular Depth Estimation,entitled 'BinsFormer: Revisiting Adaptive Bins for Monocular Depth Estimation', which adapts Transformer network to Adabins, the preprint got 64 citations (Sep 2023)

Pushi AI
Haikou, China

SOFTWARE ENGINEER INTERN
May. 2021 - Jul. 2021

- Developed a data clustering and analysis software for the Cross-Broader E-Commerse data anaysis tool independently. (Python)

Corerain Technologies
Shenzhen, China

JUNIOR ENIGNEER INTERN
Dec. 2019 - Feb. 2021

- Delivered research literature review 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.
- Delivered market research on Voice Recognition model as well as the application for both Attention mechanism and Transformer Architecture.

Honors & Awards

SCHOLARSHIPS

Hex Singapore Program Scholarship *Canberra, Australia*

AUSTRALIAN NATIONAL UNIVERSITY, COLLEGE OF COMPUTER SCIENCE, ENGINEERING AND CYBERNETICS (CECC) *Jun. 2023*

- Funding for student being selected to the 2023 HEX International Singapore winter program, including return airfares, accommodation and A$200 food allowance. Scholarship Info Link.

Faculty of Engineering and Information Technologies Credit Agreement Scholarship *Sydney, Australia*

UNIVERSITY OF SYDNEY *2018 - 2020*

- Assisting high achieving students who apply for admission via a formal credit recognition agreement. Awarded for 2 years with with $5000 per annum, based on HIT's academic record. Scholarship Info Link.

Vice Chancellor's Global Mobility Scholarship (Academic Merit) *Sydney, Australia*

UNIVERSITY OF SYDNEY *2019*

- Awarded $1000 stipend for short-term overseas program to Humbolt University of Berlin Summer University from June 2019 to July 2019, attending the English taught course 'Global cities as Center of Knowledge Production'. Awarded on the basis of academic merit (WAM 75.00% or above) and exchange destination. Scholarship Info Link.

AWARDS

Pitch Winner *Singapore*

2023 HEX SINGAPORE ENTREPRENEUR PITCH COMPETITION *Jul. 2023*

- Team based pitching around 'Smart City: AI boosted Construction Sites' with entrepreneurs and industry stakeholders in Singapore.

Local People Choice Winner *Sydney, Australia*

2019 NASA INTERNATIONAL SPACE APP CHALLENGE *Oct. 2019*

- 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**

Anual Museum Guide of 2017 *Harbin, China*

HARBIN INSTITUTE OF TECHNOLOGY MUSEUM *Dec. 2017*

- Awarded to student volunteers who provides qualitative museum guide tours.
- Served as student volunteer from Oct.2017 to June 2018 at HIt Museum, provided English guided tours about local history of North East China and school's academic achievement to international visiting academics and tourist groups.

Outstanding Conference Host of 2017 *Harbin, China*

HARBIN INSTITUTE OF TECHNOLOGY *May. 2017*

- Awarded as "Top Ten Hosts of the year" in 2017's HIT Annual Host Competition.

Outstanding English Presenter of 2016 *Harbin, China*

HARBIN INSTITUTE OF TECHNOLOGY *Oct. 2016*

- Awarded as one of the top 10 Presenter at Harbin Institute of Technology "English Presentation Competition" in 2016.