

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 served 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.
- Honor thesis: Wireless Signal Modulation Classification with on PCA and UMAP, advised by Prof. Philip Leong. (Passed - 56/100, subjected to remote research, boarder shut down, 2 months isolation and insufficient computational resource situation caused by Covid-19).
- 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 transformer, 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 preprocessing 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-Commerce data analysis tool independently. (Python)

Corerain Technologies

Shenzhen, China

JUNIOR ENGINEER 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](#)

Annual 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.