

Mr Yizhou Wang

Contact No.: +86 18215557703 | Email: ywang893@connect.hkust-gz.edu.cn

HKUSTGZ NLP Group | Personal Page: [1zhou-wang.github.io](https://github.com/1zhou-wang)

Education

09/2019-07/2023

University of Leeds

- Graduated as First Class I with Honour

Southwest Jiaotong University (SWJTU)

- Bachelor of Engineering in Electronic and Electrical Engineering
- Average Score: 87/100
- Professional Skills: MATLAB, Python <PyTorch, Transformers>

08/2023-Present

The Hong Kong University of Science and Technology (Guangzhou)

- M.Phil. Supervised by Prof. [Song JIE](#) and Prof. [Xuming HU](#)
- Postgraduate Scholarship of ¥ 240,000
- Research on Visual Language Model Hallucination Mitigation and Role-LLM Reasoning
- Current GPA: 3.56/4

Project

02/2025-05/2025

[Under Review] **CondenseVLM: High-Fidelity Visual Token Condensation for Large Vision-Language Models**

- Developed token merging for MLLM efficient reasoning
- SOTA performance in 9 popular benchmarks
- Project Repository available soon
- Pre-Print Paper available soon

02/2025-05/2025

[Under Review] **Don't Just Chase "Highlighted Tokens" in MLLMs: Revisiting Visual Holistic Context Retention**

- Developed holistic token pruning for MLLMs
- SOTA performance in 9 popular image-QA benchmarks at different pruning ratios
- SOTA performance in 2 popular video-QA benchmarks
- More efficient and reasonable pruning strategies upon visualization
- Project Repository available soon
- Pre-Print Paper available soon

07/2024-11/2024

[ICML 2025] **Memory-Space Visual Retracing for Hallucination Mitigation in Multimodal Large Language Models**

- Developed training-free inferencing structure for mitigating MLLM hallucination
- SOTA performance in 7 popular benchmarks with 3 MLLMs tested
- Extremely high efficiency in inferencing token generation speed and memory occupation
- Popular GitHub Repository with 100+ stars!
- Project Repository available at <https://github.com/1zhou-Wang/MemVR>
- Pre-Print Paper available at <https://arxiv.org/abs/2410.03577>

12/2023-Present

Multi-Functional Mobile Platform

- Awarded with Excellent RBM Project (Top 8/70)

- Developed Mobile robot platform with gripper and dexterous hand
- ICRA 2024 AXS Sim2Real Challenge 3rd in Simulation stage and 2nd in onsite competition
- Project Repository available at: <https://github.com/1zhou-Wang/Multifunctional-Mobile-Platform>

10/2022-07/2023

Bachelor's Degree Thesis: Measurement of train brake shoe thickness based on computer vision

- Applied Point Cloud Data analysis
- Segmented target in 2D image and mapped pixel coordinates to point cloud space
- Achieved over 90% accuracy on random shots of train brake shoe
- Obtained 90+ final score

05/2021-05/2022

Student Research Training Program (SRTTP): Railway Structure Diagnosis Based on Swin-Transformer Backbone with Mask R-CNN

- Served as a team leader, confirmed research areas, applied for and planned the project, and managed team members
- Inspected railway structure based on Swin-Transformer backbone with Mask R-CNN
- Approved as a national project
- Published on 2022 IEEE 5th International Conference on Electronics Technology (ICET 2022)

09/2021-03/2022

IGBT Status Prediction Based on PSO-RF with Time-Frequency Domain Features

- Utilised machine learning to predict IGBT's life stage according to the IGBT ageing dataset provided by NASA PcOE research centre
- Forecast the IGBT's remaining useful life using the Random Decision Forest algorithm and Particle Swarm Optimization algorithm with Matlab, undertook data pre-processing and feature extraction and selection, and developed an optimised random decision forest classifier
- Published on the 2022 IEEE 11 the Data Driven Control and Learning Systems Conference (DDCLS'22)

06/2021-08/2021

Arm Movements Recognition by Implementing CNN on Microcontrollers

- Acted as a group leader, formulated project plan, and supervised project schedule
- Developed applications of arm movements recognition by using sEMG signals collector and Arduino microcontroller
- Collected, analysed and processed sEMG signals, built CNN architectures with Google CoLab, optimised CNN models, and imported CNN models into Arduino microcontroller
- Published on 2021 The 9th International Conference on Control, Mechatronics and Automation (ICCMA 2021)

Internship

03/2022-02/2023

Researcher Assistant, Chengdu Hangshi Automation Technology Co, LTD

- Developed path planning and automatic navigation system based on PID algorithm
- Assisted in purchasing appropriate products and technologies