

Xu Han

2ND-YEAR CS GRADUATE STUDENT

Huazhong University of Science and Technology

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“Make it count.”

Education

Huazhong University of Science and Technology (HUST)

Wuhan, China

MASTER OF SCIENCE (M.Sc.), COMPUTER SCIENCE, SCHOOL OF COMPUTER SCIENCE AND TECHNOLOGY

Sep. 2023 - Jun. 2026 (expected)

- Supervised by Prof. Xianzhi Li.
- GPA: 3.91 (2/160), First Prize Scholarship, Tencent Scholarship, Research & Innovation Scholarship.

Shandong University (SDU)

Qingdao, China

BACHELOR OF ENGINEERING (B.Eng.), ARTIFICIAL INTELLIGENCE, SCHOOL OF COMPUTER SCIENCE AND TECHNOLOGY

Sep. 2019 - Jun. 2023

- Supervised by Prof. Mengbai Xiao, Institute of Intelligent Computing.
- GPA: 3.87 (88.7), Honours Degree (1/52), National Scholarship (Top 0.2% nationwide), Outstanding Thesis (Top 6 grads in CS, 2%).

Publication

[4] More Text, Less Point: Towards 3D Data-Efficient Point-Language Understanding

AAAI 2025

YUAN TANG*, XU HAN*, XIANZHI LI[†], QIAO YU, JINFENG XU, YIXUE HAO, LONG HU, MIN CHEN (*EQUAL CONTRIBUTION)

GitHub

- We introduce a new task, 3D Data-Efficient Point-Language Understanding. Our proposed GreenPLM uses text data to compensate for the lack of 3D data, achieving superior 3D understanding with only 12% or even without 3D data.

[3] Mamba3D: Enhancing Local Features for 3D Point Cloud Analysis via State Space Model

ACM MM 2024

XU HAN*, YUAN TANG*, ZHAOXUAN WANG, XIANZHI LI[†] (*EQUAL CONTRIBUTION, [†] CORRESPONDING AUTHOR)

GitHub

- We present Mamba3D, a state space model tailored for point cloud learning. Mamba3D surpasses existing methods in multiple tasks, achieving multiple SoTA, with only linear complexity.

[2] MiniGPT-3D: Efficiently Aligning 3D Point Clouds with Large Language Models using 2D Priors

ACM MM 2024

YUAN TANG, XU HAN, XIANZHI LI[†], QIAO YU, YIXUE HAO, LONG HU, MIN CHEN ([†] CORRESPONDING AUTHOR)

GitHub

- We present MiniGPT-3D, an efficient and powerful 3D-LLM that aligns 3D points with LLMs using 2D priors. It has only 47.8 M learnable parameters and is trained in just 26.8h on a single RTX 3090.

[1] patchDPCC: A Patchwise Deep Compression Framework for Dynamic Point Clouds

AAAI 2024

ZIRUI PAN, MENGBAI XIAO[†], XU HAN, DONGXIAO YU, GUANGHUI ZHANG, YAO LIU ([†] CORRESPONDING AUTHOR)

- We propose patchDPCC to compress each frame of the point cloud video by divides frames into patch groups, and incorporate a feature transfer module to refine the feature quality.

Experience

Institute of Intelligent Computing, Shandong University

Qingdao, China

RESEARCH ASSISTANT, SUPERVISED BY PROF. MENGBAI XIAO.

Oct. 2020 - Jun. 2023

- We propose a dynamic point cloud upsampling model to reduce the bandwidth consumption of point cloud video streaming. To accelerate inference, we propose reducing inter-frame redundancy by aligning adjacent frames in feature space. This research won the **Outstanding Graduation Thesis Award** from Shandong University. We also applied this method to point cloud video compression, improving the quality of point cloud features, which is accepted by AAAI 2024.

Honors & Awards

SCHOLARSHIPS

10/2024	Xiaomi Scholarship Nomination , HUST	Wuhan, China
10/2024	Research & Innovation Scholarship , HUST	Wuhan, China
04/2024	Tencent Scholarship , HUST	Wuhan, China
11/2023	First Prize Scholarship , HUST	Wuhan, China
10/2022	National Scholarship , Highest honor for undergraduates, top 0.2% nationwide	Qingdao, China
2021,2022	Huawei Scholarship , Two-year continuous	Qingdao, China
10/2022	Second Prize Scholarship , Top 10% in Department of Computer Science	Qingdao, China
10/2022	Research & Innovation Scholarship , Shandong University	Qingdao, China

AWARDS

07/2023	Outstanding Graduation Thesis Award , Top 6 graduates in Department of Computer Science	Qingdao, China
06/2023	Honours Bachelor Degree , 1/52	Qingdao, China
06/2023	Outstanding Graduates Award , Shandong University	Qingdao, China
2021,2022	Huawei-MOE (Ministry of Education) Future Star Award , Two-year continuous	Qingdao, China
11/2021	First Prize in China Undergraduate Mathematical Contest in Modeling , Top 0.6% in 45K teams	Qingdao, China

Skills

Programming	Python, C/C++, Shell, LaTeX
Languages	Native in Chinese (Mandarin), Fluent in English
Tools	PyTorch, Vim, Git, Blender, CUDA
Others	Basketball (Multiple awards), Electric Guitar