

Feng PAN

Ph.D. Student
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<https://github.com/MagicPF>

RESEARCH INTERESTS

- Drug-target interaction prediction.
- Conditioned molecular generation.
- Multi-modal modeling.
- Embodied intelligence and AI agent.

EDUCATION

Nanyang Technological University

Visiting Student

Singapore

Sept. 2025 – Present

Hong Kong Baptist University

Ph.D. in Computer Science

Hong Kong

Supervisor: Prof. Yuen Pong Chi

Sept. 2022 – Present

Hong Kong Baptist University

Bachelor in Computer Science

Hong Kong

Sept. 2017 – June 2020

AWARDS

- **Excellent ICODE Coach Award**, 2023, 2024, 2025
- **Excellent Teaching Assistant Performance Award**, 06/2024
- **Teaching Assistant Performance Award**, 06/2023
- **National Olympiad in Informatics in Provinces**, Second Prize, 12/2016
- **National Olympiad in Informatics in Provinces**, Third Prize, 12/2015
- **National Olympiad in Informatics in Provinces**, Third Prize, 12/2014
- **DI Shanghai Organizing Committee**, Top 6, 11/2015

PUBLICATIONS

1. Gengyang Xu, Feng Pan, and Pong C. Yuen, “A two-stage multi-modal llm fine-tuning framework for analyzing building surface defects,” in *Proceedings of the 33rd European Signal Processing Conference (EUSIPCO)*, Geneva, Switzerland, Sep. 2025.
2. Feng Pan, Chong Yin, Si-Qi Liu, Tao Huang, Zhaoxiang Bian, and Pong Chi Yuen, “Bindingsitedti: Differential-scale binding site modelling for drug–target interaction prediction,” *Bioinformatics*, vol. 40, no. 5, btae308, 2024.

EXPERIENCE

- **Founder / Entrepreneurial Experience**, Embodied AI Startup 2023 – 2024
 - Focused on development and research in the field of Embodied Intelligence.
- **Director of STEAM Department**, Damuzhi Education Institution 2017 – 2026
 - Leading curriculum development and departmental management for STEAM education.
- **A Two-Stage Multi-Modal LLM Fine-Tuning Framework** 01/2025
- **Differential-Scale Binding Site Modeling for Drug-Target Interaction** 04/2024
- **End-to-End Vision-Language-Action Model Fine-Tuning** 03/2023
- **Uncertainty Modeling in Graph Data** 10/2022
- **Multimodal chinese drug interaction prediction** 10/2021

SKILLS

Large Language Models & Agents Proficient in **MLLM fine-tuning** (LLaVA, MiniGPT-4) and adaptation (LoRA, QLoRA). Expert in building autonomous agents using **LangChain** and **AutoGPT**, specializing in **RAG** architectures and Multi-Agent system coordination.

Generative AI for Science Solid background in **Geometric Deep Learning** (Graph Neural Networks) for molecular graphs and protein structures. Experienced with **Diffusion Models** and **Equivariant Neural Networks** for 3D molecular conformation and binding affinity prediction.

High-Performance AI Engineering Specialized in **Model Compression** (INT8/FP16 Quantization, Pruning). Expert in deploying vision and language models using **TensorRT**, **ONNX Runtime**, and **Triton Inference Server** for low-latency, resource-constrained environments.

Embodied AI & Robotics Deep understanding of **Vision-Language-Action (VLA)** models. Proficient in **PyBullet** or **Isaac Gym** for simulation-to-real transfer and Reinforcement Learning (RL) based control policies.

Full-Stack Research Architecture Capability to lead the entire lifecycle of an AI product: from **distributed training** on multi-GPU clusters (DeepSpeed, FSDP) to **startup-level technical strategy** and team management.