



Zihong Luo

Male | 22 | Z.Luo21@student.liverpool.ac.uk | [Personal Website](#)

PROFILE

Research-focused undergraduate in **Computing/AI**, with experience across **multimodal learning, medical imaging, and robot learning**. Publishing at **AAAI, ICANN, ICPR**, open-source contributions, and top-tier quant competition performance. **Seeking Fall 2026 PhD/RA roles in multimodal/medical AI, representation learning, and robotics.**

EDUCATION

University of Liverpool (UoL)

BSc in Computing Science, GPA: 3.796/4.0

Liverpool, UK

Expected Jun 2026

Xi'an Jiaotong-Liverpool University (XJTLU)

BSc in Information & Computing Science, GPA: 3.75/4.0

Suzhou, China

Sep 2022 – Jun 2024

PUBLICATIONS (SELECTED)

PG-SAM: Prior-Guided SAM with Medical for Multi-organ Segmentation

2025

- Yiheng Zhong*, **Zihong Luo***, Chengzhi Liu, Feilong Tang, Zelin Peng, Ming Hu, Yingzhen Hu, Jionglong Su, Zongyuan Ge, Imran Razzak.
- arXiv: 2503.18227

Incomplete Modality Disentangled Representation for Ophthalmic Diagnosis (AAAI 2025)

2024

- Chengzhi Liu*, Zile Huang*, Feilong Tang, Yu Tian, Zhongxing Xu, **Zihong Luo**, Yalin Zheng, Yanda Meng. Project

ARIF: Adaptive Attention-Based Cross-Modal Representation Integration (ICANN 2024)

2024

- Chengzhi Liu*, **Zihong Luo***, Yifei Bi*, et al. LNCS: 10.1007/978-3-031-72347-6_1

MTSA-SNN: Multimodal Time Series Analysis via Spiking Neural Networks (ICPR 2024)

2024

- Chengzhi Liu*, **Zihong Luo***, et al. arXiv: 2402.05423

MC-DBN: Deep Belief Network-Based Modality Completion (ICPR 2024)

2024

- **Zihong Luo***, Chengzhi Liu*, et al. arXiv: 2402.09782

Interpretable ML for Peripheral Neuropathy & LEAD (BMC Med. Inf. & Decision Making)

2024

- Ya Wu, Danmeng Dong, Lijie Zhu, **Zihong Luo**, Yang Liu, Xiaoyun Xie. SpringerLink

RESEARCH EXPERIENCE

MBZUAI

Research Assistant (Prof. Imran Razzak)

Abu Dhabi, UAE

Dec 2024 – Jul 2025

- Designed a **modality prior aligner** leveraging a medical LLM to bridge **text–pixel** semantics; built a **multi-level fusion decoder** with iterative mask optimization for unprompted segmentation.
- Validated on **Synapse** and related benchmarks; results **showcased at ARXIV**. Code released.

University of Exeter

Summer Research Assistant (Prof. Yanda Meng)

Exeter, UK

Mar 2024 – Aug 2024

- Implemented IMDR with **modal-common** vs **modal-specific** disentanglement and a **joint proxy learning** module to reduce redundancy.
- Evaluated across **4 ophthalmology datasets**; achieved consistent gains over prior methods; accepted at **AAAI 2025**.

Tongji University School of Medicine (TUSM)

Shanghai, China

Research Contributor (Prof. Xiaoyun Xie): Interpretable ML for DPN & LEAD

2024

- Built interpretable models for **DPN/LEAD** prediction; used **SHAP** to reveal shared vs unique risk factors aiding DFU prevention.

XJTLU

Suzhou, China

Research Assistant (Prof. Xiaobo Jin): Modality Completion with DBN + Attention

Sep 2023 – Nov 2023

- Encoder–decoder with attention; dual-objective losses for **completion accuracy** and **integration quality**; accepted at **ICPR 2024**.

XJTLU

Suzhou, China

Research Assistant (Prof. Shuliang Zhao): MTSA-SNN for Multimodal Time Series

Jun 2023 – Sep 2023

- Integrated **image + temporal** signals via spiking architectures for heart-rate anomaly detection; **ICPR 2024** paper.

INDUSTRY EXPERIENCE

Jifu Medical (AI Algorithm Group)

Shenzhen, China

Algorithm Intern — Multimodal Robotics & AI for Medical Imaging Systems

Jun 2025 – Aug 2025

- Surveyed SOTA **action models** (e.g., ACT, ALOHA) for robot-assisted workflows; built **Isaac Sim** environment for RL/prototyping.
- Configured **LeRobot SO-101** dual-arm teleoperation; replicated motion-control pipeline; documented **failure modes** for regulatory processes.
- Developed **multimodal fusion** (endoscopic images + magnetic positioning) for MCCE anomaly detection robustness.

SELECTED OPEN-SOURCE PROJECTS

LeRobot SO101 Robotic Arm Control

2025

- Synchronized **dual-arm** control & teleoperation; dual-camera video sync; **50** recorded test episodes with dataset upload to HF Hub.
- **Tech:** Python, LeRobot, PyTorch, OpenCV **Hardware:** SO101 leader/follower arms, dual cameras.

Wheel-legged Robot Reproduction

2025

- Implemented **5-link** forward/inverse kinematics; cascaded **PID** for balance; IMU attitude feedback; RC teleop for stable locomotion.
- **Tech:** C++, Arduino **Hardware:** Wheel-leg platform, IMU, servo/BLDC.

HONORS & AWARDS

International Quant Championship (WorldQuant) — UK Finals (Top 6)

2025

- **Top 0.1%** out of **79,000+** participants worldwide; advanced to National/Regional Finals; invited to **Research Consultant Program**.

China Undergraduate Mathematical Contest in Modelling

2023

- Participant (team-based mathematical modeling competition).

Biology Olympiad

2022

- Provincial **First Prize** & National **Second Prize**.

SKILLS

Programming: Python, C++, Java, L^AT_EX

ML/DS: PyTorch, scikit-learn, OpenCV, Jupyter, Matplotlib

Dev/Platforms: Git, HuggingFace Hub, Isaac Sim

OS: Linux (Ubuntu), Windows

Languages & Tests: IELTS 7.0