Xuange Liang

Ph.D. Student in Computer Science and Engineering, HKUST

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RESEARCH INTERESTS

Multimodal learning · Intelligent agents · AI for health

EDUCATION

The Hong Kong University of Science and Technology
Sep 2026 - Present

Ph.D., Computer Science and Engineering

Advisor: Prof. Qian Zhang

Columbia University
Sep 2024 - May 2026

M.P.H., Biostatistics

Outstanding Student · CEOR

Peking University
Sep 2020 - Jul 2024

B.S., Intelligence Science and Technology

SELECTED PUBLICATION

Foundation Models for Heterogeneous Treatment Effect Estimation: Adapting Pretrained EHR Embeddings in Small Clinical Cohorts

Xuange Liang, Bin Yang, Yuanjia Wang

AAAI-26 Workshop on Health Intelligence (W3PHIAI-26), 2026 · Short paper

Paper PDF (author manuscript)

SELECTED RESEARCH

Heterogeneous Treatment Effect Estimation with EHR Embeddings
2025 - 2026

Columbia University · Research with Prof. Yuanjia Wang

- Studied how pretrained CLMBR embeddings can support treatment-effect estimation in small clinical cohorts.
- Adapted EHR representations using principal component analysis and an R-learner, with comparisons across clinical outcomes.

Multimodal 3D Object Detection
Oct 2022 - May 2024

Peking University · Research with Prof. Yongtao Wang

- Developed continuous-depth components using Lift-Splat-Shoot and ZoeDepth, with a detection head and data pipeline in MMDetection 3D.

Xuange Liang

Selected projects & engineering experience

SELECTED SOFTWARE PROJECTS

HAEnv · Health Agent Environment

2026

Developer at Theta Health · Team open-source project

- Developed patient-generation and agent-evaluation tooling, verification checks, and an interactive patient-timeline demonstration as part of the Theta Health team.

Repository · Interactive demo

Health Agent Sandbox

2026 - Present

Research design in progress

- Designing a simulation environment for long-term health-agent decisions, with reproducible patient trajectories and counterfactual comparisons. Implementation and validation are planned.

PROFESSIONAL EXPERIENCE

Shanda Group · AI Intern

Jun 2025 - Present

Shanghai

- Contributed to an LLM-agent health analysis system using wearable and physical-examination data.
- Reorganized health-indicator and time-series data in PostgreSQL; synthesized virtual health data with C-GAN, CPAR, and Gaussian Copula models.

JD Tech · Back-End Engineer Intern

Aug 2023 - Sep 2023

Beijing

- Developed Golang APIs and migration scripts for database workflows; supported Docker and Kubernetes deployment and MySQL query optimization.

CloudWalk Technology · Data Scientist Intern

Jul 2022 - Sep 2022

Guangzhou

- Cleaned and structured health data with SQL, optimized database queries, and evaluated Random Forest and XGBoost models with cross-validation.

TECHNICAL SKILLS

Programming Python, C++, Go, Java, SQL, R, SAS

ML & data PyTorch, XGBoost, PostgreSQL, MySQL

Engineering Git, Docker, Kubernetes