

DANXUAN LIANG

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EDUCATION

Hong Kong University of Science and Technology

MPhil in Computer Science and Engineering

- Supervisor: Professor Huamin QU

Hong Kong, China

Sep. 2025 – Present

Hong Kong University of Science and Technology

BEng in Computer Science with Extended Major in Artificial Intelligence

Hong Kong, China

Sep. 2021 – May. 2025

University of Illinois, Urbana-Champaign

Exchange Student, Computer Science

IL, USA

Aug. 2023 – Dec. 2023

SKILLS

Full Stack Development, Machine Learning, LLM Application Development, Data Analysis, Web Development, Unity Development, VR/XR Development

Programming Languages & Frameworks/Tools: Python (Pytorch, Tensorflow, Pandas), C++, C# (Unity), Java, JavaScript/TypeScript (React.js, Node.js), CUDA, HTML, CSS

English: IELTS: 7.5

PUBLICATIONS

Designing Scaffolding Strategies for Conversational Agents in Dialog Task of Neurocognitive Disorders Screening.

J Hu, J Li, Y Zeng, D Yang, **D Liang**, H Meng, X Ma

<https://doi.org/10.1145/3613904.3642960>

CHI 2024. May. 2024

PROJECT EXPERIENCE

GAVIS: VR English Speaking Practice Program (awarded HKD \$30 million from QEF)

HKUST

Advisor: **Prof. Huamin QU** (VisLab, HKUST)

Jul. 2025 - Present

- VR software development (scenes, UI, backend integration) in Unity on Meta Quest.
- Developed non-verbal expression detection functionality via gesture skeleton data analysis to generate real-time personalized feedback.
- Designed and implemented a presentation practice scenario, including 3D scene construction and end-to-end interactive workflow development.

Stage Lighting Education in Metaverse

Texas A&M University (Remote)

Advisor: **Prof. Wai Tong** (VVAI Lab, TAMU)

Sep. 2024 - Present

- Built an intelligent VLM-powered performance evaluation system for VR stage lighting education in Unity, with integrated lighting design and 3D spatial design comprehension capabilities.
- Collaborated with the Media Technology and Publishing Center at HKUST, alongside lighting professors from the Hong Kong Academy for Performing Arts (HKAPA) and Texas A&M University (TAMU), to conduct iterative prototype testing and refine the system design based on expert feedback.

Designing Conversational Agents for Neurocognitive Disorders Screening

HKUST

Advisor: **Prof. Xiaojuan Ma** (CSE, HKUST)

Feb. 2023 - May. 2024

Presentation Video: [link](#)

- Applied scaffolding theory to design the dialog flow and developed a prototype of the conversational agent.
- Assisted in data coding, specifically handling video files obtained from cooperating hospitals.
- Collaborated in the development of the subject-end interface and contributed to UI design and testing.
- Co-authored a research paper related to the project.

INDUSTRIAL EXPERIENCE

Hong Kong Hospital Authority, Summer IT Intern

Kowloon Bay, Hong Kong

Jun. 2024 – Aug. 2024

- Implemented new data retrieval and sharing features for hospital information systems on eHealth, a centralized healthcare data sharing platform.
- Conducted data analysis for hospital information systems using Python Pandas.
- Built an internal Java-based automated LLM-powered data formatting tool to boost operational efficiency.
- Executed functional and performance testing for core platform features to ensure system stability and usability.

Quantum Digital Health Ltd., Product Manager Intern

Cyberport, Hong Kong
May. 2023 - Jul. 2023

- Optimized the UI/UX design of JianKangPai, a health assessment WeChat Mini Program leveraging facial scanning technology for elderly users.
- Conducted market analysis and provided end-to-end support for product development and optimization targeting the Mainland China market.
- Assisted in the organization and execution of the company's exhibition booth at the World Artificial Intelligence Conference (WAIC).

Soqqle Ltd., Game Developer & UI/UX Designer

HKSTP, Hong Kong
Jan. 2022 – Mar. 2022

- Developed Classlet, a 3D metaverse educational application for situational teaching using the Unity engine.
- Delivered end-to-end full-stack development for the application, encompassing metaverse scenario construction, Unity C# development, UI/UX design, backend API development, and MongoDB database design & integration.
- Built a Redis-based broadcast socket system to enable core multiplayer interactive functionality for the application.

SELECTED COURSES

Machine Learning
Human-Computer Interaction
Algorithm
Calculus

Software Engineering
Operating System
Matrix and Linear Algebra
Computer Organization.

C++ Programming
Natural Language Processing
Parallel Programming
Knowledge Discovery in Databases