

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

RESEARCH INTERESTS

VR/XR, Interactive System Design, Human-Computer Interaction, Education Technology, AI-driven Educational Multimedia, LLM for Coding

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 Program (awarded HKD \$20 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 scoring logic for English speech and non-verbal expression (using gesture data).
• Developed a presentation practice feature.

Stage Lighting Education in Metaverse **Texas A&M University (Remote)**
Advisor: Prof. **Wai Tong** (VVAI Lab, TAMU) **Sep. 2024 - Present**
• Built an intelligent performance evaluation system for VR stage lighting education in Unity using open-source models.
• Independently tested the prototype with a HKAPA lighting expert and iterated the design based on their 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 features for eHealth, a centralized platform for healthcare data sharing.
• Performed data analysis and backup operations to ensure system security and integrity.

Quantum Digital Health Ltd., Digital Marketing Intern **Cyberport, Hong Kong**
May. 2023 - Jul. 2023
• Improved UX design of "JianKangPai," a health assessment WeChat mini-program using facial scanning technology for elderly users.
• Conducted market analysis and supported marketing strategy development for Mainland China.
• Assisted in organizing an exhibition 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 app for situational teaching using Unity.

- Designed a character clothing system with UI, MongoDB database, and C# scripting.
- Built a Redis-based broadcast sockets system for multiplayer functionality.

HONORS

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| • Dean's List | 2024 |
| • Finalist of The Best UROP Mini-conference Paper Award, HKUST | 2024 |
| • JUPAS Scholarship Awardee, HKUST | 2021 |

SELECTED COURSES

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|----------------------------|---------------------------|-----------------------------|
| Human-Computer Interaction | Operating System | Natural Language Processing |
| Algorithm | Matrix and Linear Algebra | Parallel Programming |
| Machine Learning | Software Engineering | C++ Programming |
| Calculus | Computer Organization | |

SKILLS

Programming: Python (Pytorch, Tensorflow, Pandas), C++, C# (Unity), Java, Javascript (React.js), HTML, CSS

English: IELTS: 7.5