**Danxuan Liang**

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Education

**Hong Kong University of Science and Technology Hong Kong, China**

BEng in Computer Science + Artificial Intelligence Sep. 2021 – May. 2025

**University of Illinois, Urbana-Champaign IL, USA**

Exchange Student, Computer Science Aug. 2023 – Dec. 2023

Research INTERESTs

Human-Computer Interaction, Human-Engaged Computing, Education Technology, AI, Computing for Health, LLM

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*](https://doi.org/10.1145/3613904.3642960) **CHI 2024**. May. 2024

Research Experience

**Stage Lighting Education in Metaverse** Texas A&M University (Remote)

Advisor: **Prof. Wai Tong** (VVAI Lab, TAMU) Sep. 2024 - Now

• Designed and developed a real-time instruction and annotation system for stage lighting education in VR, collaborating with educators to enhance interactive learning.

• Built a scalable light settings data collection system using Django.

**Designing Conversational Agents for Neurocognitive Disorders Screening** HKUST

Advisor: **Prof. Xiaojuan Ma** (CSE, HKUST) Feb. 2023 - May. 2024

• 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.

• Participated in the Wizard of Oz test of the system, analyzing the outcomes and enhancing the user experience (UX).

• Designed a fully automated system workflow, eliminating the need for a wizard.

• Developed an audio-control system that allowed subjects to control the movement of tokens using a speech-to-text model.

• Co-authored a research paper related to the project.

**Classlet: A Virtual 3D Metaverse Environment for Classroom Learning** Lingnan University

Advisor: **Prof. Paulina Wong** (Science Unit, Lingnan University) May. 2022 - June. 2022

• Constructed and proposed a prototype for "Classlet", a virtual 3D metaverse environment aimed at enhancing classroom learning.

• Collaborated with Soqqle Ltd. in the development of the Classlet product, contributing to its design and implementation.

• Assisted Professor Wong in the practical application of the Classlet tool within a sustainable environmental course, facilitating its integration into the curriculum and supporting students' engagement and learning experiences.

• Gathered and analyzed data to evaluate the impact and outcomes of using Classlet in the classroom.

Industrial Experience

**Hong Kong Hospital Authority,** Summer IT InternKowloon Bay, Hong Kong Jun. 2024 – Aug. 2024

• Assisted in the implementation of new functions for eHealth, a platform designed for hospitals, clinics, and government agencies to facilitate data sharing and provide more convenient services for patients and citizens.

• Provided data analysis and backup support for the hospital system, ensuring the security and integrity of critical data.

• Collaborated in system testing activities, ensuring the reliability and functionality of the eHealth platform.

**Soqqle Ltd.,** Game Developer & UI/UX DesignerHKSTP, Hong Kong Jan. 2022 - now

• Developed a 3D metaverse educational app called "Classlet" for situational teaching using Unity.

• Designed a character clothing system for the metaverse app, including UI design, database structure design using MongoDB, and script writing with C#.

• Built a broadcast sockets system with Redis to support multiplayer functionality.

• Assisted in game content creation, contributing to the development of engaging and interactive experiences.

Honors

• Finalist of The Best UROP Mini-conference Paper Award, HKUST 2024

• Reaching Out Award, HKSAR Government Scholarship Fund 2023/24

• JUPAS Scholarship Awardee, HKUST 2021

SELECTED COURSES

Human-Computer Interaction Operating System Natural Language Processing

Algorithm Matrix and Linear Algebra Parallel Programming

Machine Learning Software Engineering Calculus

SKILLS

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

**English:** IELTS: 7.5