

LIU, Dingdong

Email: dliuak@connect.ust.hk | Phone: +852 54916001 / +86 18802788451 || [GitHub](#) | [Webpage](#)

EDUCATION

The Hong Kong University of Science and Technology (HKUST), Hong Kong, China

Doctor of Philosophy in Computer Science and Engineering

09/2022 – Present

CGA:3.85/4.30

- University Scholarship - Postgraduate Studentship (PGS) award (220K HKD/yr.)
- HKUST RedBird Academic Excellence Award: Year 2024, Year 2025, Year 2026

The Hong Kong University of Science and Technology (HKUST), Hong Kong, China

Bachelor of Science in Computer Science

09/2018 – 06/2022

CGA:3.84/4.30

Bachelor of Science in Data Science and Technology (Second Major)

MCGA: 3.89/4.30

Graduate in First Class Honour

- University Scholarship - Kerry Holdings Limited Scholarship (70K HKD/yr.)
- Dean's List (TGA 3.7 or above, top 10%): Fall 2018, Fall 2019, Spring 2020, Fall 2021, Spring 2021
- Top 5% in Hash Code 2020, Google Co. Ltd

Korea University (KU), Seoul, South Korea

07/2021 – 08/2021

- Virtual Exchange: International Summer Campus

PUBLICATIONS

UIST 2026 | CoNarrate: Computationally Modeling Information Prematurity and Scaffolding the Co-Construction of Patient Narratives in Asynchronous Telehealth | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#) and [Yun Wang \(Microsoft Research\)](#)

05/2025 – 04/2026

- Main Role: Led an independent project to improve telehealth communication, analyzing 5,000+ encounters, resulting in a taxonomy of information-delivery failures. Developed conversational agent that significantly accelerated communication and improved information accuracy, relevance in patient narrative.
- Accepted to UIST 2026 as first author. To be published by Oct 31st.

TOCHI | Dissecting Interaction Gulfs: Towards Automating Neurocognitive Disorder Screening Dialog Tasks | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#) and [Prof. Helen, Mei Ling, MENG \(CUHK\)](#)

11/2024 – 04/2026

- Main Role: Led the project. Designed and evaluated an automated Neurocognitive screening system. Discovered interaction gulfs that could hinder test validity and proposed design considerations.
- Submitted to TOCHI as first author. Under Review.

RO-MAN 2025 | Dynamic Prompting Improves Turn-taking in Embodied Spoken Dialogue Systems | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#), [Prof. Bertram Emil SHI \(HKUST\)](#) and [Prof. Fugee TSUNG \(HKUST-GZ and HKUST\)](#)

11/2024 – 04/2025

- Main Role: Co-lead the project. Contributed to ideation, turn-taking algorithm development, lead the human evaluation experiment and data analysis.
- Published by RO-MAN 2025 as co-first author.

CHI 2025 | Scaffolded Turns and Logical Conversations: Designing Humanized LLM-Powered Conversational Agents for Hospital Admission Interviews | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#)

05/2024 – 09/2024

- Main Role: Led the project. Explored and co-designed empirical skills for conversational agents to assist in the admission interview. Designed, implemented and evaluated a proposed prototype system with users.
- Published by CHI 2025 as first author.

RO-MAN 2024 | A Humanoid Robot Dialogue System Architecture Targeting Patient Interview Tasks | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#) and [Prof. Bertram Emil SHI \(HKUST\)](#)

06/2023 – 08/2024

- Main Role: Co-lead the project. Contributed to ideation and implementation of the proposed floor-coordinator. Lead the experiment design and human evaluation for the system.
- Published by ROMAN 2024 as co-first author. Bronze award in UBTECH Best Industry Application.

DIS 2024 Provocations and Works in Progress | Exploring Scaffolding Techniques for Agent-Administered Brief Cognitive Screening in Hospital Settings | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#)

06/2022 – 07/2023

- Main Role: Lead the project. Summarized empirical scaffolding techniques used by clinicians to support patients with potential cognitive decline.
- Published by DIS 2024 as first author.

CHI 2026 | From Human Pragmatic Language Skills to Conversational Agent Design: A Systematic Review of Transfer Strategies | Supervisor: [Prof. Xiaojuan MA \(HKUST\)](#)

05/2025 – 09/2025

- Main Role: Participated in literature review and contributed to taxonomy. Identified key knowledge transferring mechanisms and strategies used by designers.
- Accepted by to CHI as sixth author.

CHI 2025 InsightBridge: Enhancing Empathizing with Users through Real-Time Information Synthesis and Visual Communication Supervisor: Prof. Xiaojuan MA (HKUST) • Main Role: Participated in project ideation, system development and experiment. Proposed and developed the conversational agent in the InsightBridge system. • Published by CHI 2025 as fourth author.	05/2024 – 09/2024
VIS 2024 StuGPTViz: A Visual Analytics Approach to Understand Student-ChatGPT Interactions Supervisor: Prof. Huamin Qu (HKUST) and Prof. Meng XIA, Iris (Texas A&M University) • Main Role: Assist in system development. • Published by VIS 2024 as fifth author.	03/2023 – 03/2024
CHI 2023 CoArgue: Fostering Lurkers' Contribution to Collective Arguments in Community-based QA Platforms Supervisor: Prof. Xiaojuan MA (HKUST) • Main Role: Designed the algorithm pipeline and implemented related NLP algorithms which extracted argumentative elements from questions threads. • Published by CHI 2023 as third author.	06/2022 – 12/2022
DIS 2022 Exploring the Effects of Self-Mockery to Improve Task-Oriented Chatbot's Social Intelligence Supervisor: Prof. Xiaojuan MA (HKUST) • Main Role: Developed a self-mockery database and designed a self-mockery generation algorithm. • Published by DIS 2022 as fourth author.	05/2021 – 02/2022
CSCW 2022 PlanHelper: Supporting Activity Plan Construction with Answer Posts in Community-based QA Platforms Supervisor: Prof. Xiaojuan MA (HKUST) • Main Role: Designed the algorithm pipeline and implemented related NLP algorithms which first summarizes key points from answers, then cluster and reorganize them into aspects and sub-aspects. • Published by CSCW 2022 as third author.	06/2021 – 01/2022
PATENT	
USPTO An Automated Scaffolding System for Neurocognitive Disorder Screening Dialog Tasks • Invented a scaffolding-conversational agent system for automated Neurocognitive disorder screening for better usability and user engagement. • Provisional Application No. 63/854,195, filed July 30, 2025, at the United States Patent and Trademark Office (Patent Center #71603362).	07/2025
PROFESSIONAL EXPERIENCES	
Research Intern Pervasive HCI Group, Tsinghua University • Main Role: Led an independent project on post dentist care service. Analyzed user patterns and design working strategies for clinician-patient-agent collaboration. • Supervisor: Prof. Yuntao Wang	01/2026 – 04/2026
Research Intern Microsoft Research • Main Role: Led an independent project to improve telehealth communication; analysed 5,000+ encounters, developed a taxonomy of information-delivery failures, and built an algorithm that significantly accelerated communication (statistically validated). Manuscript submitted to UIST 2026 • Supervisor: Yun Wang	05/2025 – 09/2025
Team Leader Joint-University Algo Trading Challenge 2021 • AlphaBoom: Use LSTM Model to Trade Multiple Asset Markets on a High-frequency Basis • Main Role: Lead a team to design a novel trading algorithm in Forex market. Designed a data mining algorithm to predict future price in forex market • Second place in Best Strategy. Award hyperlink.	11/2020 – 02/2021
Assistant Project Manager Wuhan YCIG I-Link Technology Co. Ltd • Main Role: Participated in project modeling and refining to achieve CMMI rank 5. Analyzed 5 major projects in the past 3 years with more than 5 million investments on each. • Given suggestions on engineering process and achieved a 5% efficiency improvement by end of the year.	05/2020 – 08/2020
PARTICIPATED FUNDED RESEARCH PROJECTS	
Research and Development of Artificial Intelligence in Extraction and Identification of Spoken Language Biomarkers for Screening and Monitoring of Neurocognitive Disorders Funded by RGC, T45-407/19N-2	06/2024 – 08/2025

- Main Role: Contributed to the development of an intelligent screening system for cognitive impairment, focusing on spoken language biomarker extraction and identification for early detection and monitoring
- Patent application in progress under project. One paper submitted to ACM CHI 2026.

Frontier and Human-centric AI and Robotics Technology for Geriatric Care | Funded by RGC, AoE/E-601/24-N 09/2022 – 08/2025

- Main Role: Participated in the design and framework development of human–robot conversational systems for elderly care applications.
- Published two co-first-author papers in IEEE RO-MAN (2024 & 2025) and one first-author paper in ACM CHI 2025.

ACADEMIC SERVICE

Reviewer 2024 – 2026

- ACM Conference on Human Factors in Computing Systems (CHI) | 2024, 2025, 2026
- ACM Conference on Human Factors in Computing Systems (CHI) Late-Breaking Work | 2024, 2025
- ACM Conference on Designing Interactive Systems (DIS) | 2025, 2026
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) | 2024

Service Awards & Recognitions 2025 – 2026

- Special Recognition for Outstanding Review: CHI2026, DIS 2025, CHI 2025 Late Breaking Work

AWARDS AND SCHOLARSHIPS

Postgraduate Studentship | The Hong Kong University of Science and Technology 2022 – 2026

- HKD 225,120/year

RedBird Academic Excellence Award | The Hong Kong University of Science and Technology 2024, 2025, 2026

- HKD 20,000/year

Kerry Holdings Limited Scholarship | The Hong Kong University of Science and Technology 2018 – 2022

- HKD 70,000/year

Dean's List | The Hong Kong University of Science and Technology 2018 – 2022

- Awarded to top 10% students. Five times

PROFESSIONAL SKILLS

- Programming language: C++, Python, Java, Octave, Git
- Fields: Android Development (Skilled), Deep Learning (Skilled)