

Hanfang Lyu

pearllhf.github.io | hlyuag@connect.ust.hk |  PearlLHF

Ph.D. Candidate (defended July 2026), The Hong Kong University of Science and Technology

Human-Robot/Computer Interaction, Human-Centered AI, Mixed-Reality Robot Prototypes and Interfaces

EDUCATION

- **The Hong Kong University of Science and Technology [HKUST]** Sep. 2022 - Oct. 2026
Doctor of Philosophy (Ph.D.) in Computer Science and Engineering
◦ Supervisors: [Prof. Xiaojuan Ma](#) and [Prof. Fugee Tsung](#) Hong Kong, China
- **The Hong Kong University of Science and Technology (Guangzhou) [HKUST(GZ)]** Feb. 2025 - May 2026
Cross-Campus Study Program Guangzhou, China
- **The Hong Kong University of Science and Technology [HKUST]** Sep. 2018 - Jun. 2022
Bachelor of Science (B.Sc.) in Mathematics (Applied Mathematics Track), and in Computer Science (Additional Major) Hong Kong, China

PUBLICATIONS

- [1] **Hanfang Lyu**, Xiaoyu Wang, Nandi Zhang, Shuai Ma, Qian Zhu, Yuhao Luo, Fugee Tsung, and Xiaojuan Ma. [Signaling Human Intentions to Service Robots: Understanding the Use of Social Cues during In-Person Conversations](#). In *CHI Conference on Human Factors in Computing Systems (CHI '25)*. ( [Honorable Mention Award](#))
- [2] **Hanfang Lyu**, Yuanchen Bai, Xin Liang, Ujaan Das, Chuhan Shi, Leiliang Gong, Yingchi Li, Mingfei Sun, Ming Ge, and Xiaojuan Ma. [FARPLS: A Feature-Augmented Robot Trajectory Preference Labeling System to Assist Human Labelers' Preference Elicitation](#). In *29th International Conference on Intelligent User Interfaces (IUI '24)*.
- [3] Kangyu Yuan, **Hanfang Lyu**, Runhua Zhang, Hansika Murugu, and Xiaojuan Ma. [Exploring Aggressors' InMatch Cognitive and Emotional Formation and Toxic Behavior Trajectories in MOBA Games](#). In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI '26)*.
- [4] Kangyu Yuan, Li Zhang, **Hanfang Lyu**, Ziqi Pan, Yuanhao Zhang, Junze Li, Bingcan Guo, Jiaxiong Hu, Qingyu Guo, and Xiaojuan Ma. ["I Love the Internet Again": Exploring the Interaction Inception of "TikTok Refugees" Flocking into Rednote](#). In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*.
- [5] Qingyu Guo, Chao Zhang, **Hanfang Lyu**, Zhenhui Peng, and Xiaojuan Ma. [What Makes Creators Engage with Online Critiques? Understanding the Role of Artifacts' Creation Stage, Characteristics of Community Comments, and their Interactions](#). In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*.

PROJECTS

- **Human- and Animal-Inspired Expressions upon Error for Machine-Like Robots** Jun. 2025 - Present
Seven co-design workshops (21 participants, 106 designs) in XR with a robot arm (Apple Vision Pro/Unity, ROS MoveIt), deriving design patterns for error reactions that elicit sympathy and willingness to help [First author, Under Review]
- **Understanding Human-Robot Collaboration in Construction Tasks** Sep. 2024 - Aug. 2026
Analyzed human-robot collaboration (HRC) in construction work through video content analysis, interviews, and multimodal reasoning models; built a graph-based pipeline to predict next collaboration move of the robot. [Contributing]
- **Robot Task Learning through Virtual Human Demonstration** Sep. 2022 - Jun. 2024
Built an MR robot-teleoperation system for trajectory demonstration (HoloLens 2, Unity, ROS MoveIt) and the preference-labeling system FARPLS [2]; designed a diffusion-policy-based method; co-inventor of a joint Hong Kong short-term patent (granted 2025). Explored imitation-learning baselines (robosuite, robomimic) [INAIR Joint Lab]
- **A Commonsense Mediated Happiness-building Activity Recommendation System** Sep. 2021 - Jun. 2022
Designed a React recommender mapping HappyDB moments to COMET-based activity suggestions; supervised by Prof. Xiaojuan Ma [Final Year Project]

SERVICE AND TEACHING

- **Technical Chair and Session Host** ( Best Student Contributors), Pre-CHI '25, Greater Bay SIGCHI Chapter 2025
- **Reviewer**, 5× CHI '26 (2  Special Recognitions), HRI '26, CHI '25, 3× CHI LBW '25, CSCW '24 2024 - 2025
- **Student Volunteer**, China Night @ CHI '25, IUI '24 2024 - 2025
- **Teaching Assistant**, CORE1232 2022 Spring, COMP1022P Fall 2023, COMP2211 Fall 2024, COMP1023 Fall 2025 2022 - 2025

AWARDS AND HONORS

- **Honorable Mention Award**, CHI 2025, ACM 2025
- **First Class Honors**, HKUST 2022
- **The Chern Class Graduate with Achievement Scholarship**, Department of Mathematics, HKUST 2018 - 2022
- **University Scholarship Scheme for Continuing Undergraduate Students**, HKUST 2019 - 2020
- **Dean's List**, HKUST 2018 Fall, 2021 Spring