

Mengze Hong

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EDUCATION

- **The Hong Kong Polytechnic University** Hong Kong, China
PhD in Computer Science Sep 2024 - Expected 2028
 - **Supervisor:** Prof. Qing Li and Prof. Chen Jason Zhang
 - **Thesis Topic:** Compliance-Guaranteed Customer Service Automation with LLM-in-the-Loop
- **The University of Nottingham** Nottingham, UK
BSc (Hons) Mathematics and Data Science Sep 2021 - Jun 2024
 - **Grade:** First Class Honours (GPA: 3.98/4)
 - **Awards:** Faculty Best Student Award (top 1%), Dean's Excellence Scholarship Award (top 1%)

RESEARCH EXPERIENCE

- **AI Group, WeBank** Shenzhen, China
NLP Research Intern Jun 2024 - Oct 2025
 - **Supervisor:** Prof. Di Jiang
 - **Research Focus:** large language models, dialogue data mining, customer service systems
 - Developed compliance-guaranteed customer service automation systems for the banking application.
 - Proposed the LLM-in-the-loop paradigm for cost-efficient dialogue data mining at industrial-scale.
- **Luckin Coffee Inc.** Beijing, China
Strategy Analyst Intern Jun 2023 - Sep 2023
 - **Research Focus:** data-driven enterprise solutions, market data analysis, retail services
 - Proposed a data-driven five-year development roadmap for the company's overseas expansion strategies.
 - Developed data automation systems to manage large-scale retail databases and extract market insights.

PUBLICATIONS

- **Orchestration-Free Customer Service Automation: A Privacy-Preserving and Flowchart-Guided Framework**
Mengze Hong et al. TheWebConf 2026.
- **Multimodal Peer Review Simulation with Actionable and Community-Aware To-Do Recommendations**
Mengze Hong et al. TheWebConf 2026 Demo.
- **CiteLLM: An Agentic Platform for Trustworthy Scientific Reference Discovery**
Mengze Hong et al. TheWebConf 2026 Demo.
- **Federated Heterogeneous Language Model Optimization For Hybrid Automatic Speech Recognition**
Mengze Hong et al. ICASSP 2026.
- **Dial-In LLM: Human-Aligned LLM-in-the-loop Intent Clustering for Customer Service Dialogues**
Mengze Hong et al. EMNLP 2025.
- **QualBench: Benchmarking Chinese LLMs with Localized Professional Qualifications**
Mengze Hong et al. EMNLP 2025.
- **Augmenting Compliance-Guaranteed Customer Service Chatbots with Context-Aware Knowledge Expansion**
Mengze Hong et al. EMNLP 2025.
- **Dialogue Language Model with Large-Scale Persona Data Engineering**
Mengze Hong et al. NAACL 2025.
- **Learning by Teaching: Enhancing Music Learning Through LLM-Based Teachable Agents**
Lingxi Jin, Mengze Hong et al. AIED 2025 (core A).
- **InfantCryNet: A Data-driven Framework for Intelligent Analysis of Infant Cries**
Mengze Hong et al. ACML 2024

UNDER REVIEW / PREPRINT

- **LLM-in-the-Loop: Replicating Human Insight with Instruction-tuned Large Language Models**
Mengze Hong et al. 2025
- **Retrieval Augmented Learning-To-Match Against Hallucination in Compliance-Guaranteed Service Systems**
Mengze Hong et al. 2025
- **From Pipelined to Agentic: A Survey on LLM-Driven Task-Oriented Dialogue Systems**
Mengze Hong et al. 2025
- **Robustness of Audio-Based Biometric Authentication Systems Against Open-Source Deepfake Speech Synthesis**
Mengze Hong et al. 2025

INVITED TALKS

- **Hong Kong's New Web3 Era: How Stablecoins, RWA, and DeFi are Transforming the Future of FinTech**
Research Seminar, Invited by Za Bank and HKU
- **AI Meets Web3: How Emerging LLM Technologies Will Transform Our Lives?**
Podcast, Invited by HashKey Group
- **Large Language Model Driven AI Chatbots and Virtual Avatars in Hospitality and Service Sectors.**
Guest Lecture, Invited by SHTM, PolyU
- **From Concept to Reality: Blockchain Applications in Supply Chain, Healthcare, and Hospitality.**
Guest Lecture, Invited by Innovative Experience Design, PolyU
- **Applying AI in Accounting and Finance: Transforming Practices for the Future.**
Workshop, Invited by Business School, PolyU

MEDIA COVERAGE

I have served as an invited columnist for 文汇报 (Wen Wei Po, HK) newspaper, writing on AI and FinTech.

- 从AI交易大赛Alpha Arena看技术趋势与市场特征 (Technical Trends and Insights From the AI Trading Competition)
- 从黑箱到白链：去中心化智能引领未来 (Decentralized Intelligence Leads the Future)
- 金融大模型进军Web3：赋能去中心化未来的智能核心 (Financial LLMs in Web3: Empowering Decentralized Future)

PROFESSIONAL SERVICES

- **Teaching Assistant:** COMP6708 Advanced Big Data Computing (PhD-level), COMP3134 Business Intelligence and Customer Relationship Management (undergraduate-level)
- **Reviewer / Program Committee:** ACL, EMNLP, NAACL, ACM MM, EACL, CIKM, ICDE, ACML
- **Senior Consultant at HashKey Exchange:** Delivered regular seminars and workshops on AI literacy and digital transformation, published monthly analytical reports on emerging AI, fintech, and regulatory trends.