Li Chuang (Victor)

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Education

National University of Singapore (NUS) **2020 - 2025**
PhD Candidate, Graduate School for Integrative Sciences and Engineering (ISEP), CAP: 4.71/5.0
Awarded NGS-ISEP Scholarship, Presidential Graduate Fellowship, Research Incentive Award
Research Areas: NLP, Conversational Search and Recommendation Systems
Supervisors: A/Prof Kan Min-Yen (NUS)*, Prof Li Haizhou (CUHK)*

National University of Singapore (NUS) **2016 - 2020**
Bachelor of Engineering (Electrical & Computer Engineering, 1st Honours), CAP: 4.71/5.0
Awarded NUS Science and Technological Scholarship

Centrale Supélec, Paris, France **Spring 2019**
NUS Student Exchange Program

Université de Strasbourg, France **Summer 2017**
Awarded NUS French Language Immersion Award

Research Experience

LLM-based Conversational Recommender System (CRS) **2024 - 2026**
- Improving LLM-based CRS towards a proactive and knowledgeable system for both response generation and domain-specific recommendation tasks
- Designed a **ChatCRS framework** that enhances knowledge retrieval and goal-oriented planning, improving language quality by 20% and boosting recommendation accuracy by 10x
- Proposed a **contextual adaptation framework** to integrate external recommenders with LLMs, enhancing recommendation accuracy by 40%, even in low-resource settings

Zero-Shot Dialogue State Tracking (DST) **2023 - 2024**
- Developed a multi-task and self-training framework for zero-shot DST in low-resource environments
- Led the first DST study to leverage unlabelled data for training, achieving an 8% improvement in Joint Goal Accuracy across 5 domains
- Demonstrated the efficacy of the method on both small language models and LLMs

Holistic Conversational Recommender Systems (CRS) **2022 - 2023**
- Conducted a comprehensive survey of CRS, identifying the gap between standard CRS (template-based) and holistic systems (natural language-based)
- Reviewed over 40 research papers, covering methods, datasets, and evaluation tools, providing insights into future CRS development

SCDF Conversational AI (995 Emergency Calls) **2021 - 2022**
- Led a data annotation team of 8 research assistants for over 5,000 dialogues in emergency call data
- Improved annotation efficiency by 300% using novel data processing techniques
- Developed DST models for low-resource telephone information retrieval

Publications

- C. Li*, H. Hu, Y. Zhang, M.Y. Kan, H. Li. (2023). A survey of holistic conversational recommender systems. *KaRS@RecSys 2023*.
- C. Li*, Y. Zhang, M.Y. Kan, H. Li. (2023). UNO-DST: Leveraging Unlabelled Data in Zero-Shot Dialogue State Tracking. *NAACL 2024*.
- H. Hu*, Q. Liu, C. Li, M.Y. Kan. (2023). Lightweight Modality Adaptation to Sequential Recommendation via Correlation Supervision. *ECIR 2024*.
- C. Li*, Y. Deng, H. Hu, M.Y. Kan, H. Li. (2024). Incorporating External Knowledge and Goal Guidance for Conversational Recommendation. *NAACL 2025*.

- C. Li*, Y. Deng, S.K. Ng, H. Hu, M.Y. Kan, H. Li. (2025). Contextual Adaptation of Recommender for LLM-based Conversational Recommendation. ECIR 2026.

Skills

Languages: Fluent in English and Mandarin (Written and Spoken), Intermediate French (B2 level)
Programming: Python, C, C++, Matlab, SQL
AI & ML: PyTorch, TensorFlow,

Work Experience

TikTok Pte Ltd **June 2025 - Now**
AI Algorithm Engineer
- Worked on Industrial Search and Recommendation System for IR
- Contributed to 0 to 1 building of reranking model for TikTok Mall Text-based Searching Platform

National University of Singapore **June - December 2024**
Graduate Research Assistant
- Worked on NLP-related research projects
- Contributed to publications targeting in top AI and Information Retrieval conferences.

MediaTek Pte. Ltd. (Singapore) **June - December 2018**
IC Layout Design Engineer
- Worked on memory IC design with Virtuoso and related verification tools
- Contributed to test-chip development, received a team award for project contributions