

Jian Wang

Department of Computing, The Hong Kong Polytechnic University

✉ jwanglv@gmail.com ☎ (+852) 5332 5143
🌐 Homepage: <https://iwangjian.github.io>

RESEARCH INTERESTS

Natural language processing (NLP), Conversational AI, Large language models (LLMs), Dialogue generation, Embodied intelligence

EDUCATIONAL BACKGROUND

Ph.D. in Computer Science

The Hong Kong Polytechnic University
Supervisor: Prof. Maggie Wenjie Li

2021 – 2024

Hong Kong, China

M.Sc. in Computer Science and Technology

South China University of Technology
Supervisors: Prof. Kejing He and Prof. Min Yang

2017 – 2020

Guangzhou, China

B.Eng. in Computer Science and Engineering & B.Ec. in Finance

South China University of Technology

2013 – 2017

Guangzhou, China

RESEARCH EXPERIENCES

University of Michigan

Visiting Ph.D. Student

Ann Arbor, MI, USA

2024/02 – 2024/06

- Advisor: Prof. Joyce Chai
- Work on situated dialogues and personalization of LLMs

The Hong Kong Polytechnic University

Research Assistant

Hong Kong, China

2020/11 – 2021/08

- Advisor: Prof. Maggie Wenjie Li
- Work on Web search clarification and recommendation-oriented dialogues

Rulai Inc.

Research Intern

Campbell, CA, USA (Remotely)

2020/07 – 2020/10

- Advisor: Dr. Yi Zhang
- Work on Text-to-SQL for task-oriented QA

SIAT, Chinese Academy of Sciences

Visiting Graduate Student

Shenzhen, China

2018/08 – 2019/09

- Advisor: Prof. Min Yang
- Work on knowledge-grounded and task-oriented dialogue generation

PUBLICATIONS

First-Author Publications:

- Dongding Lin*, Jian Wang*, Chak Tou Leong, and Wenjie Li. SCREEN: A Benchmark for Situated Conversational Recommendation. *ACM Multimedia (ACM MM'24)*, 2024. (*: Equal contribution)
- Jian Wang, Chak Tou Leong, Jiashuo Wang, Dongding Lin, Wenjie Li, and Xiao-Yong Wei. 2024. Instruct Once, Chat Consistently in Multiple Rounds: An Efficient Tuning Framework for Dialogue. In *Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL'2024)*.

- **Jian Wang**, Dongding Lin, and Wenjie Li. 2024. Target-constrained Bidirectional Planning for Generation of Target-oriented Proactive Dialogue. *ACM Transactions on Information Systems (TOIS)*.
- **Jian Wang**, Yi Cheng, Dongding Lin, Chak Tou Leong, and Wenjie Li. 2023. Target-oriented Proactive Dialogue Systems with Personalization: Problem Formulation and Dataset Curation. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP'23)*.
- **Jian Wang**, Dongding Lin, and Wenjie Li. 2023. Dialogue Planning via Brownian Bridge Stochastic Process for Goal-directed Proactive Dialogue. In *Findings of the Association for Computational Linguistics: ACL 2023*.
- **Jian Wang**, Dongding Lin, and Wenjie Li. 2023. A Target-Driven Planning Approach for Goal-Directed Dialog Systems. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*.
- Dongding Lin*, **Jian Wang***, and Wenjie Li. 2023. COLA: Improving Conversational Recommender Systems by Collaborative Augmentation. In *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI'23)*. (*: Equal contribution)
- **Jian Wang** and Wenjie Li. 2021. Template-guided Clarifying Question Generation for Web Search Clarification. In *Proceedings of the 30th ACM International Conference on Information & Knowledge Management (CIKM'21)*.
- **Jian Wang**, Junhao Liu, Wei Bi, Xiaojiang Liu, Kejing He, Ruifeng Xu, and Min Yang. 2020. Dual Dynamic Memory Network for End-to-End Multi-turn Task-oriented Dialog Systems. In *Proceedings of the 28th International Conference on Computational Linguistics (COLING'20)*.
- **Jian Wang**, Junhao Liu, Wei Bi, Xiaojiang Liu, Kejing He, Ruifeng Xu, and Min Yang. 2020. Improving Knowledge-Aware Dialogue Generation via Knowledge Base Question Answering. In *Proceedings of the 34th AAAI Conference on Artificial Intelligence (AAAI'20)*.
- **Jian Wang**, Kejing He, and Min Yang. 2020. Topic Discovery by Spectral Decomposition and Clustering with Coordinated Global and Local Contexts. *International Journal of Machine Learning and Cybernetics (JMLC)*.

Co-Author Publications:

- Hanlin Wang, Chak Tou Leong, **Jian Wang**, and Wenjie Li. E2CL: Exploration-based Error Correction Learning for Embodied Agents. 2024. In *Findings of the Association for Computational Linguistics: EMNLP 2024*.
- Yi Cheng, Wenge Liu, **Jian Wang**, Chak Tou Leong, Yi Ouyang, Wenjie Li, Xian Wu, and Yefeng Zheng. 2024. COOPER: Coordinating Specialized Agents towards a Complex Dialogue Goal. In *Proceedings of the 38th AAAI Conference on Artificial Intelligence (AAAI'24)*.
- Chak Tou Leong, Yi Cheng, Jiashuo Wang, **Jian Wang**, and Wenjie Li. 2023. Self-Detoxifying Language Models via Toxicity Reversal. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP'23)*.
- Kaishuai Xu, Wenjun Hou, Yi Cheng, **Jian Wang**, and Wenjie Li. 2023. Medical Dialogue Generation via Dual Flow Modeling. In *Findings of the Association for Computational Linguistics: ACL 2023*.
- Kai Guo, **Jian Wang**, and Samuel Kai Wah Chu. 2022. Using Chatbots to Scaffold EFL Students' Argumentative Writing. *Assessing Writing*.
- Gaoshan Wang, **Jian Wang**, and Kejing He. 2022. Majority-to-Minority Resampling for Boosting-based Classification under Imbalanced Data. *Applied Intelligence*.
- Dongding Lin, **Jian Wang**, and Wenjie Li. 2021. Target-guided Knowledge-aware Recommendation Dialogue System: An Empirical Investigation. In *Proceedings of the KaRS and ComplexRec Joint Workshop @ RecSys 2021*.

PROJECTS

- SMART SPACE** 2022/06
- An interactive demo for coffee breaks based on vision, language, and robotics (Led by COMP, PolyU)
 - Focus on building dialogue agents for human-robot conversations
- Multi-skill Dialogue Systems** 2021/05
- 2021 Language and Intelligence Challenge: Track 2 (Hosted by Baidu)
 - Focus on dialogue modeling with multiple skills (knowledge grounding, persona, and recommendation)
- Automatic Title Generation for News Articles** 2018/12
- Byte Cup 2018 International Machine Learning Contest (Hosted by ByteDance)
 - Focus on document summarization with a hybrid extractive-abstractive approach

HONORS & AWARDS

- Third Prize of 2021 Baidu Language and Intelligence Challenge 2021
- AAAI 2020 Student Scholarship 2020
- First Class of Graduate Scholarship 2018, 2017
- Third Prize of Byte Cup 2018 International Machine Learning Contest 2018
- Global Ranking of 50/2121 on IEEE Xtreme 11.0 Programming Competition 2017
- Bronze Medal of 2016 HUAWEI Code Craft (Shenzhen Area Site) 2016
- National Scholarship (**Top 1%**, the highest scholarship for undergraduates) 2016
- National Encouragement Scholarship 2015, 2014

TEACHING EXPERIENCES

- COMP 6709: Advanced Natural Language Processing, TA, PolyU Spring 2023, 2022
- COMP 2021: Object-Oriented Programming, TA, PolyU Fall 2022, 2021
- Design and Analysis of Algorithms, TA, SCUT Spring, 2018
- Advanced Programming Language (C++), TA, SCUT Fall, 2017

ACADEMIC SERVICES

- Reviewer for ACL Rolling Review (ARR)
- Conference Reviewer: ACL (2023, 2024), EMNLP (2022, 2023, 2024), COLING (2020, 2022)
- Journal Reviewer: TKDE, TNNLS

TECHNICAL SKILLS

- Language: Chinese (Native), English (Fluent)
- Coding: Python, C/C++, Java, Shell, SQL, HTML, CSS, JavaScript
- Tools: PyTorch, Tensorflow, Git, Docker, LaTeX, Markdown, Vim