Jian Wang

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RESEARCH INTERESTS

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

EDUCATIONAL BACKGROUND

Ph.D. in Computer Science <i>The Hong Kong Polytechnic University</i> Supervisor: Prof. Maggie Wenjie Li	2021 – 2024 (Expected) 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	e 2013 – 2017 Guangzhou, China
RESEARCH EXPERIENCES	
 University of Michigan Visiting Ph.D. Student Advisor: Prof. Joyce Chai Work on situated dialogues and personalization of LLMs 	Ann Arbor, MI, USA 2024/02 – 2024/06
 The Hong Kong Polytechnic University <i>Research Assistant</i> Advisor: Prof. Maggie Wenjie Li Work on Web search clarification and recommendation-oriented dialoc 	Hong Kong, China 2020/11 – 2021/08
 Rulai Inc. Research Intern Advisor: Dr. Yi Zhang Work on Text-to-SQL for task-oriented QA 	Campbell, CA, USA (Remotely) 2020/07 – 2020/10
 SIAT, Chinese Academy of Sciences Visiting Graduate Student Advisor: Prof. Min Yang Work on knowledge-grounded and task-oriented dialogue generation 	Shenzhen, China 2018/08 – 2019/09

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'2023)*.
- **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:

- 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 Toxification Reversal. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP'2023)*.
- 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 Boostingbased 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, Pol Focus on building dialogue agents for human-robot conversations 	yU)
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

0	Third Prize of 2021 Baidu Language and Intelligence Challenge	2021
0	AAAI 2020 Student Scholarship	2020
0	First Class of Academic Scholarship at SCUT	2018, 2017
0	Third Prize of Byte Cup 2018 International Machine Learning Contest	2018
0	Global Ranking of 50/2121 on IEEE Xtreme 11.0 Programming Competition	2017
0	National Scholarship (Top 1% , the highest scholarship for undergraduates)	2016
0	Bronze Medal of 2016 HUAWEI Code Craft (Shenzhen Area Site)	2016
0	National Encouragement Scholarship	2015, 2014
0	Merit Student of SCUT & Outstanding Student Leader of SCUT-CS	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, НтмL, CSS, JavaScript
- Tools: PyTorch, Tensorflow, Git, Docker, LaTeX, Markdown, Vim