Jian Wang

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Homepage: https://iwangjian.github.io

EDUCATION

The Hong Kong Polytechnic University (PolyU) **Hong Kong, China**
PhD in Computer Science *2021/09 – Present*
- **Supervisor**: Prof. Maggie Wenjie Li
- **Research Interests**: Natural Language Processing (NLP), Dialogue Systems, Conversational AI

South China University of Technology (SCUT) **Guangzhou, China**
MSc in Computer Science and Technology *2017/09 – 2020/06*

South China University of Technology (SCUT) **Guangzhou, China**
BEng in Computer Science and Engineering *2013/09 – 2017/06*
BEc in Finance (Minor degree)

RESEARCH EXPERIENCES

University of Michigan **Ann Arbor, MI, USA**
Visiting PhD Student *2024/02 – Present*
- Advisor: Prof. Joyce Chai
- Worked on situated dialogue and personalization of LLMs

The Hong Kong Polytechnic University **Hong Kong, China**
Research Assistant *2020/11 – 2021/08*
- Advisor: Prof. Maggie Wenjie Li
- Worked on Web search clarification and recommendation-oriented dialogue

Rulai Inc. **Campbell, CA, USA (Remotely)**
Research Intern *2020/07 – 2020/10*
- Advisor: Dr. Yi Zhang
- Worked on Text-to-SQL for task-oriented QA

SIAT, Chinese Academy of Sciences **Shenzhen, China**
Visiting Student *2018/08 – 2019/09*
- Advisor: Prof. Min Yang
- Worked on knowledge-grounded and task-oriented dialogue generation

PUBLICATIONS

- **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)*.
- 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)*.
- **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)*.
- 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*).

- **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*.
- 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*.
- **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)
- Gaoshan Wang, **Jian Wang**, and Kejing He. 2022. Majority-to-Minority Resampling for Boosting-based Classification under Imbalanced Data. *Applied Intelligence*.
- **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*).

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 Generation *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 Academic Scholarship at SCUT 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
- National Scholarship (**Top 1%**, the highest scholarship for undergraduates) 2016

- Bronze Medal of 2016 HUAWEI Code Craft (Shenzhen Area Site) 2016
- National Encouragement Scholarship 2015, 2014
- 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

PROFESSIONAL ACTIVITIES

- Conference Reviewer: ACL (2023), EMNLP (2022, 2023), COLING (2020, 2022)

TECHNICAL SKILLS

- Coding: Python, C/C++, Java, Shell, SQL, HTML, CSS, JavaScript
- Tools: PyTorch, Tensorflow, Git, Docker, LaTeX, Markdown, Vim