

# Jian Wang

Department of Computing, The Hong Kong Polytechnic University

✉ jwanglvy@gmail.com    ☎ (+852) 5332 5143

🌐 Homepage: <https://iwangjian.github.io>

## EDUCATION

---

### The Hong Kong Polytechnic University

*PhD in Computer Science*

**Hong Kong, China**

2021/09 – Present

- **Supervisor:** Prof. Maggie Wenjie Li
- **Research Interests:** Conversational AI, Natural Language Processing (NLP), Dialogue Systems

### South China University of Technology

*MSc in Computer Science and Technology*

**Guangzhou, China**

2017/09 – 2020/06

### South China University of Technology

*BEng in Computer Science and Engineering*

**Guangzhou, China**

2013/09 – 2017/06

*BEd in Finance (Minor degree)*

## RESEARCH EXPERIENCES

---

### University of Michigan

*Visiting PhD Student*

**Ann Arbor, MI, USA**

2024/02 – Present

- Advisor: Prof. Joyce Chai
- Worked on situated dialogue and personalization of LLMs

### The Hong Kong Polytechnic University

*Research Assistant*

**Hong Kong, China**

2020/11 – 2021/08

- Advisor: Prof. Maggie Wenjie Li
- Worked on Web search clarification and recommendation-oriented dialogue

### Rulai Inc.

*Research Intern*

**Campbell, CA, USA (Remotely)**

2020/07 – 2020/10

- Advisor: Dr. Yi Zhang
- Worked 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
- Worked on knowledge-grounded and task-oriented dialogue generation

## PUBLICATIONS

---

First-Author 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)*.
- **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 (IJMLC)*.

#### 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 Toxication 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 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

---

- |   |         |
|---|---------|
| <b>SMART SPACE</b>  | 2022/06 |
| <ul style="list-style-type: none"> <li>○ An interactive demo for coffee breaks based on vision, language, and robotics (Led by COMP, PolyU)</li> <li>○ Focus on building dialogue agents for human-robot conversations</li> </ul>     |         |
| <b>Multi-skill Dialogue Generation</b>  | 2021/05 |
| <ul style="list-style-type: none"> <li>○ 2021 Language and Intelligence Challenge: Track 2 (Hosted by Baidu)</li> <li>○ Focus on dialogue modeling with multiple skills (knowledge grounding, persona, and recommendation)</li> </ul> |         |
| <b>Automatic Title Generation for News Articles</b>   | 2018/12 |
| <ul style="list-style-type: none"> <li>○ Byte Cup 2018 International Machine Learning Contest (Hosted by ByteDance)</li> <li>○ Focus on document summarization with a hybrid extractive-abstractive approach</li> </ul>               |         |

## 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

## ACADEMIC SERVICES

---

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

## 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