

# Jian Wang

Department of Computing, The Hong Kong Polytechnic University

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## EDUCATION

### The Hong Kong Polytechnic University (PolyU)

*PhD in Computer Science*

**Hong Kong, China**

2021/09 – Present

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

### South China University of Technology (SCUT)

*MSc in Computer Science and Technology*

**Guangzhou, China**

2017/09 – 2020/06

### South China University of Technology (SCUT)

*BEng in Computer Science and Engineering*

**Guangzhou, China**

*BEc in Finance (Minor degree)*

2013/09 – 2017/06

## RESEARCH EXPERIENCES

### 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 systems

### SIAT, Chinese Academy of Sciences

*Visiting Student*

**Shenzhen, China**

2018/08 – 2019/09

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

## PUBLICATIONS

- **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)
- **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)*.
- Dongding Lin, **Jian Wang**, and Wenjie Li. 2021. Target-guided Knowledge-aware Recommendation Dialogue System: An Empirical Investigation. In *Proceedings of the Joint KaRS & ComplexRec Workshop @ RecSys 2021*.
- **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

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- SMART SPACE for Coffee Break** 2022/06
- An intelligent demo for coffee breaks based on vision, language, and robotics techniques (@ 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

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- 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

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- 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

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

## TECHNICAL SKILLS

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- Coding: Python, C/C++, Java, Shell, SQL, HTML, CSS, JavaScript
- Tools: PyTorch, Tensorflow, Git, Docker, L<sup>A</sup>T<sub>E</sub>X, Markdown, Vim