# Jian Wang

Department of Computing, The Hong Kong Polytechnic University

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#### **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) BEng in Computer Science and Engineering

Guangzhou, China

2013/09 - 2017/06

BEc in Finance (Minor degree)

#### RESEARCH EXPERIENCES

#### The Hong Kong Polytechnic University

Hong Kong, China

Research Assistant

2020/11 - 2021/08

o 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 systems

# 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**

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

#### **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

- o 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**

<ul> <li>Third Prize of 2021 Baidu Language and Intelligence Challenge</li> </ul>	2021
AAAI 2020 Student Scholarship	2020
First Class of Academic Scholarship at SCUT	2018, 2017
<ul> <li>Third Prize of Byte Cup 2018 International Machine Learning Contest</li> </ul>	2018
<ul> <li>Global Ranking of 50/2121 on IEEE Xtreme 11.0 Programming Competition</li> </ul>	2017
<ul> <li>National Scholarship (Top 1%, the highest scholarship for undergraduates)</li> </ul>	2016
<ul> <li>Bronze Medal of 2016 HUAWEI Code Craft (Shenzhen Area Site)</li> </ul>	2016
National Encouragement Scholarship	2015, 2014
<ul> <li>Merit Student of SCUT &amp; Outstanding Student Leader of SCUT-CS</li> </ul>	2015, 2014

## **TEACHING EXPERIENCES**

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

#### PROFESSIONAL ACTIVITIES

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

# TECHNICAL SKILLS

Coding: Python, C/C++, Java, Shell, SQL, HтмL, CSS, JavaScript
 Tools: PyTorch, Tensorflow, Git, Docker, LATEX, Markdown, Vim