WANG HONGRU

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Homepage: https://rulegreen.github.io/ Github: https://github.com/ruleGreen

Google Scholar: https://scholar.google.com/citations?hl=en&user=s6UtVYUAAAAJ

EDUCATION

Communication University of China	*2015/09 - 2019/09*
B.Eng. Computer Science and Technology	**GPA: 3.27/4.00**
Computer Operation System, Computer Networks, Data Structures and Algorithms	

The Chinese University of Hong Kong	*2019/09 - 2020/11*
M.Eng. Computer Science and Engineering	**GPA: 3.60/4.00**
Data Mining, Big Data Technology, Machine Learning	

The Chinese University of Hong Kong	*2021/09 - Now*
Ph.D. candidate supervised by Prof. Kam-Fai Wong	**GPA: 3.70/4.00**
Dialogue System, Large Language Models, Tool Learning	

PUBLICATIONS

- **Hongru Wang, Minda Hu, Yang Deng, Rui Wang, Fei Mi, Weichao Wang, Yasheng Wang, Wai-Chung Kwan, Irwin King, Kam-Fai Wong: Large Language Models as Source Planner for Personalized Knowledge-grounded Dialogue, Findings of EMNLP 2023.** Knowledge-grounded DS, LLM

- **Hongru Wang*, Rui Wang*, Fei Mi, Yang Deng, Zezhong Wang, Bin Liang, Ruifeng Xu, Kam-Fai Wong: Cue-CoT: Chain-of-thought Prompting for Responding to In-depth Dialogue Questions with LLMs, Findings of EMNLP 2023.** Personalized DS, LLM

- **Wai-Chung Kwan*, Hongru Wang*, Huimin Wang, Kam-Fai Wong: A Survey on Recent Advances and Challenges in Reinforcement Learning Methods for Task-Oriented Dialogue Policy Learning, Machine Intelligence Research 2023 (Journal).** Task-oriented DS

- **Hongru Wang, Zezhong Wang, Wai-Chung Kwan, Kam-Fai Wong: MCML: A Novel Memory-based Contrastive Meta-Learning Method for Few Shot Slot Tagging, Proceedings of IJCNLP-AACL 2023.** Task-oriented DS

- **Hongru Wang, Huimin Wang, Zezhong Wang and Kam-Fai Wong: Integrating Pre-trained Language Model for Dialogue Policy Learning. Proceedings of ICASSP 2022.** Task-oriented DS, RLAIF

- **Hongru Wang, Xiangru Tang, Sunny Lai, Kwong Sak Leung, Jia Zhu, Gabriel Pui Cheong Fung, and Kam-Fai Wong: CUHK at SemEval-2020 Task 4: CommonSense Explanation, Reasoning and Prediction with Multi-task Learning. Proceedings of the Fourteenth Workshop on Semantic Evaluation, pages 391–400, Barcelona (online). International Committee for Computational Linguistics.** Commonsense Knowledge

- **Zezhong Wang*, Luyao YE*, Hongru Wang, Wai-Chung Kwan, David Ho, Kam-Fai Wong: ReadPrompt: A Readable Prompting Method for Reliable Knowledge Probing, Findings of EMNLP 2023.** Knowledge Probing, LLM

- **Boyang XUE*, Weichao Wang*, Hongru Wang, Fei Mi, Rui Wang, Yasheng Wang, Lifeng Shang, Xin Jiang, Qun Liu, Kam-Fai Wong: Improving Factual Consistency for**

Knowledge-Grounded Dialogue Systems via Knowledge Enhancement and Alignment, Findings of EMNLP 2023. Knowledge-grounded DS

- Yang Deng, Lizi Liao, Liang CHEN, Hongru Wang, Wenqiang Lei, Tat-Seng Chua: Proactive Dialogue Systems in the Era of Large Language Models: Evaluating from a Prompting Perspective. Findings of EMNLP 2023. LLM

- Liang Chen, Hongru Wang, Yang Deng, Wai Chung Kwan, Zezhong Wang, Kam-Fai Wong: Towards Robust Personalized Dialogue Generation via Order-Insensitive Representation Regularization, Findings of ACL 2023. Personalized DS

- Rui Wang, Jianzhu Bao, Fei Mi, Yi Chen, Hongru Wang, Yasheng Wang, Yitong Li, Lifeng Shang, Kam-Fai Wong, Ruifeng Xu: Retrieval-free Knowledge Injection through Multi-Document Traversal for Dialogue Models, Proceedings of ACL 2023. Knowledge-grounded DS

- Zhiming Mao, Jian Li, Hongru Wang, Xingshan Zeng, Kam-Fai Wong: DIGAT: Modeling News Recommendation with Dual-Graph Interaction, Findings of EMNLP 2022. Others

PREPRINTS

- Hongru Wang, Huimin Wang, Lingzhi Wang, Minda Hu, Rui Wang, Boyang XUE, Hongyuan Lu, Fei Mi, Kam-Fai Wong: TPE: Towards Better Compositional Reasoning over Conceptual Tools with Multi-persona Collaboration (2023) Tool Learning

- Rui Wang*, Hongru Wang*, Fei Mi, Yi Chen, Ruifeng Xu, Kam-Fai Wong: Self-Critique Prompting with Large Language Models for Inductive Instructions (2023). LLM

- Wai-Chung Kwan, Huimin Wang, Hongru Wang, Zezhong Wang, Xian Wu, Yefeng Zheng, Kam-Fai Wong: JoTR: A Joint Transformer and Reinforcement Learning Framework for Dialog Policy Learning (2023). Task-oriented DS

- Hongru Wang, Zhijing Jin, Gabriel Pui Cheong Fung, Kam-Fai Wong: Inconsistent Few-Shot Relation Classification via Cross-Attentional Prototype Networks with Contrastive Learning (2020). Others

EMPLOYMENT

Research Intern	*2022/04 - 2023/03*
Huawei, Supervisors: Dr. Fei Mi, Dr. Weichao Wang, Prof. Qun Liu	
Research Assistant	*2020/03 - 2021/07*
MoE Key Lab of High Confidence Software Technologies, Supervisors: Prof. Kam-Fai Wong	
Research Intern	*2019/04 - 2019/07*
Kuaishou (The biggest competitor with Tiktok in China), Supervisors: Xiang Wan	

COMPETITIONS & PROJECTS

Research and Development of Human Assist AI to Build Customized Task-oriented Dialogue System with Recommendation	*2020/05 - 2021/07*

- Built a data collection platform to mimic human-to-human dialogue in restaurants; designed corresponding intents and slots in the conversation and set up the interface; post-processed collected dataset such as cleaning, filtering, and correcting typos.

- Implemented task-oriented dialogue system based on ConvLab2 platform; designed dialogue flow and templates for natural language generation; conducted experiments based on our new datasets.

SMP 2020 ECDT Few-shot Spoken Language Understanding *2020/06 - 2020/08*

- Data analysis (intent and slot distribution across different domains); reviewed related work and selected suitable baseline.

- Designed and implemented data augmentation strategies, conducted experiments with weighted sampling, and implemented post-processing rules. Led the team to achieve a third prize with our model, boasting an impressive 96.89% intent F1 and 85.42% slot F1.

SemEval 2020 Task 4: CommonSense Dectection and Explanation *2019/09 - 2020/05*

- Proposed an effective and interpretable "Explain, Reason and Predict" (ERP) system to solve the three sub-tasks about commonsense and ranked top 10 at the competition.

- Implemented our approaches; conducted multiple experiments under multi-task setting; wrote the draft of the paper.

Interdisciplinary/Mathematical Contest In Modeling of America *2018/02 - 2018/03*

- Applied raw data correction to establish mathematical model using MATLAB and developed an analog simulation to the existing energy usages.

- Predicted the profile of energy in the next 15, 50, and 100 years; proposed sustainable development strategies

Undergraduate Program for Entrepreneurship *2017/03 - 2018/03*

- Gathered requirements through questionnaires, designed product prototypes, formulated interaction logic, and crafted user interfaces. Led team efforts, facilitated meetings, and resolved challenges. Addressed some code issues such as data transmission.

- Analyzed feedback from students, teachers and staff; improved functions and published new version of the platform

TEACHING ASSISTANT

SEEM 3450 Engineering Innovation and Entrepreneurship
SEEM 3490 Information Systems Management
SEEM 5730 / ECLT 5910 Information Technology Management

AWARDS AND SCHOLARSHIPS

Third Prize of Internet + College Students Innovation and Entrepreneurship Competition   school
China National Radio Scholarship   school
A software copyright of "WeCampus WeChat mini-program"(2018SR562540)   national
Meritorious Winner, Mathematical Contest In Modeling(2018)   international