Wai-Chung Kwan, Cyrus

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EDUCATION

The Chinese University of Hong Kong **Aug. 2020 – Present**
Doctor of Philosophy (PhD) in Systems Engineering and Engineering Management
Supervised by Prof. Kam-Fai Wong

Hong Kong Baptist University **2015 – 2019**
Bachelor of Science (Hons) in Computer Science
Minor in Statistics
- Dean's List (2018/19; 2017/18)
- Outstanding Student Scholarship (2016/17)

EXPERIENCE

Visiting Researcher **April 2024 – July 2024**
King's College London
- Perform research on improving social reasoning.

Research Intern **Jun. 2023 – Feb. 2024**
Huawei Noah's Ark Lab
- Construct two benchmarks to evaluate LLM capabilities.

Research Assistant (Full Time) **Aug. 2019 – Aug. 2020**
Hong Kong Baptist University
- Perform text analysis on social media data(e.g. lihkg forum)
- Develop model for different NLP projects
    - News Headline Generation
    - Cantonese Word Segmentation

Data Scientist (Intern) **May. 2018 – Aug. 2018**
MultiMedia Big Data Analytics Limited
- Develop Natural Language Processing Deep Learning models
    - Sentiment Analysis, Information Extraction etc.
- Devise better data-driven models of human behavior
- Take part in researches to advance the science and technology of intelligent machines.

Research Assistant (Part Time) **Jan. 2018 – May. 2019**
Hong Kong Baptist University
- Data cleaning and processing for some text mining research.
- Apply statistics model and machine learning model to data
- Sentiments analysis in social media

PUBLICATIONS (* indicates equal contribution)

1. M4LE: A Multi-Ability Multi-Range Multi-Task Multi-Domain Long-Context Evaluation Benchmark for Large Language Models
   Wai-Chung Kwan, XingShan Zeng, Yufei Wang, Yusen Sun, Liangyou li, Lifeng Shang, Qun Liu, and Kam-Fai Wong.
   Annual Meeting of the Association for Computational Linguistics (ACL), 2024.
   [Nominated for Best Paper Award]

2. JoTR: A Joint Transformer and Reinforcement Learning Framework for Dialog Policy Learning
   Wai-Chung Kwan*, Huimin Wang*, Hongru Wang, Zezhong Wang, Xian Wu, Yefeng Zheng, and Kam-Fai Wong.
   International Conference on Computational Linguistics (COLING), 2024

3. MT-Eval: A Multi-Turn Capabilities Evaluation Benchmark for Large Language Models
   Wai-Chung Kwan, Xingshan Zeng, Yuxin Jiang, Yufei Wang, Liangyou Li, Lifeng Shang, Xin Jiang, Qun Liu, and Kam-Fai Wong
   arXiv:2401.16745. Feb 2024.

4. Dialog Action-Aware Transformer for Dialog Policy Learning
   Huimin Wang*, **Wai-Chung Kwan***, and Kam-Fai Wong.
   Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL), 2023.

5. CoAD: Automatic Diagnosis through Symptom and Disease Collaborative Generation
   Huimin Wang*, **Wai-Chung Kwan***, and Kam-Fai Wong.
   Annual Meeting of the Association for Computational Linguistics (ACL), 2023.

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

7. Large Language Models as Source Planner for Personalized Knowledge-grounded Dialogue
   Hongru Wang, Minda Hu, Yang Deng, Rui Wang, Fei Mi, Weichao Wang, Yasheng Wang, **Wai-Chung Kwan**, Irwin King, and Kam-Fai Wong.
   Findings of Empirical Methods in Natural Language Processing (EMNLP), 2023.

8. ReadPrompt: A Readable Prompting Method for Reliable Knowledge Probing
   Zezhong Wang, Luyao Ye, Hongru Wang, **Wai-Chung Kwan**, David Ho, and Kam-Fai Wong.
   Findings of Empirical Methods in Natural Language Processing (EMNLP), 2023.

9. Towards Robust Personalized Dialogue Generation via Order-Insensitive Representation Regularization
   Liang Chen, Hongru Wang, Yang Deng, **Wai-Chung Kwan**, Zezhong Wang, and Kam-Fai Wong.
   Findings of the Association for Computational Linguistics (ACL), 2023.

10. MCML: A Novel Memory-based Contrastive Meta-Learning Method for Few Shot Slot Tagging

Hongru Wang, Zezhong Wang, **Wai-Chung Kwan**, and Kam-Fai Wong
Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics (AACL), 2023.

11. Prior Omission of Dissimilar Source Domain(s) for Cost-Effective Few-Shot Learning
Zezhong Wang*, Hongru Wang*, **Wai-Chung Kwan**, and Kam-Fai Wong.
International Conference on Natural Language and Speech Processing (ICNLSP), 2022.

12. Using Time-Series Patterns in Word Segmentation for Data Pre-Processing: A Methodological Development in Evolving Public Discourse Mining
Yin Zhang, **Wai-Chung Kwan**, Wai-Yeung Ho, Chi-Chi Tong, and Tsz-Ho Hui.
Conference of International Communication Association (ICA), 2020.