

# Fengran Mo

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## EDUCATION

**PhD**, Computer Science, University of Montreal, Advisor: **Jian-Yun Nie**, Sep 2022 - May 2026

**MSc**, Computer Science, University of Montreal, Sep 2020 - Aug 2022

**B.E.**, Computer Science, Dalian University of Technology, China, Sep 2016 - Aug 2020

## RESEARCH INTERESTS

**General Interests:** Conversational AI, Information Retrieval (IR), Natural Language Processing (NLP), Large Language Models (LLMs), Multilingualism, Interactive AI, AI for social goods.

**Recent Focuses:** (1) how to integrate retrieval and generative paradigms to improve the effectiveness, robustness, and trustworthiness of conversational AI systems; (2) how to build up human-centered interactive AI systems for users with various backgrounds and society requirements.

## HONORS and AWARDS

- **Best Resource Paper Award**, EMNLP 2024
- **Best Paper Nominations**, ACM WWW 2023
- **Canada Montreal Bourses AI Fellowship**, 2022
- **Canada MITACS Globalink Graduate Research Fellowship**, 2021
- **UdeM Doctoral End-of-Study Fellowship**, 2025
- **DIRO Bourses d'excellence Merit Student Scholarships**, 2021, 2022, 2023, 2024, 2025
- **OpenAI Research Program Grant**, 2024

## SELECTED PUBLICATIONS

1. [Newest] **Fengran Mo**, Zhan Su, Yuchen Hui, Jinghan Zhang, Jia Ao Sun, Zheyuan Liu, Chao Zhang, Tetsuya Sakai, Jian-Yun Nie. *OpenDecoder: Open Large Language Model Decoding to Incorporate Document Quality in RAG*, 2025.
2. **Fengran Mo**, Jian-Yun Nie, Kaiyu Huang, Kelong Mao, Yutao Zhu, Peng Li, Yang Liu. *Learning to Relate to Previous Turns in Conversational Search*, In Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Long Bench, 2023.
3. **Fengran Mo**, Yifan Gao, Chuan Meng, Xin Liu, Zhuofeng Wu, Kelong Mao, Pei Chen, Zheng Li, Zhengyang Wang, Xian Li, Bing Yin, Meng Jiang. *UniConv: Unifying Retrieval and Response Generation for Large Language Models in Conversations*, In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL), Vienna, 2025.
4. **Fengran Mo**, Kelong Mao, Yutao Zhu, Yihong Wu, Kaiyu Huang, Jian-Yun Nie. *ConvGQR: Generative Query Reformulation for Conversational Search*, In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Toronto, Canada, 2023.

## PROFESSIONAL EXPERIENCES

**Amazon Rufus Team, Applied Scientist Intern**, Palo Alto, Bay Area, USA, Aug 2025 - Nov 2025  
*Conversational Agent for Interactive Information Accessing*, Advisor: **Chao Zhang** and **Xian Li**.

**Amazon Nile Team, Applied Scientist Intern**, Palo Alto, Bay Area, USA, Jun 2024 - Dec 2024  
*Unifying Retrieval and Generation for LLMs in Conversations*, Advisor: **Meng Jiang** and **Yifan Gao**.

**Tsinghua University, AIR, Visiting Student**, Beijing, China, Mar 2022 - Jun 2022  
*Learning to Relate to Previous Turns in Conversational Search*, Co-Advisor: **Yang Liu**.

**Ant Group, Research Intern**, Hangzhou, China, May 2021 - Oct 2021

*A Customized Text Sanitization Mechanism with Differential Privacy*, Co-Advisor: **Cen Chen**.

**Dalhousie University and MITACS, Research Intern**, Halifax, Canada, Jun 2019 - Sep 2019

*Interactive Hierarchical Clustering for Medical Domain*, Advisor: **Evangelos Milios**.

## **PROFESSIONAL ACTIVITIES**

### **Tutorial/Workshop Organizers**

- First Leading Organizer and Speaker, Conversational Search: From Fundamentals to Frontiers in the LLM Era, Tutorial on SIGIR 2025 at Padova, Italy.
- First Leading Organizer, Multilinguality in the Era of Large Language Models (MeLLMs), Workshop on ACL 2026 at San Diego, USA.

### **Senior Program Committee Members/Meta Reviewers**

- Area Chair, Association for Computational Linguistics (ACL) Rolling Reviews (ARR), including conference of ACL, EMNLP, NAACL, EACL, and AACL, 2024, 2025.

### **Program Committee Members/Reviewers**

- ACM SIG Conference on Research and Development in Information Retrieval (SIGIR), 2025.
- ACM SIG Conference on Knowledge Discovery and Data Mining (KDD), 2024.
- ACM International Conference on Information and Knowledge Management (CIKM), 2023 - 2025.
- ACM International Conference on Web Search and Data Mining (WSDM), 2023 - 2025.
- ACM International World Wide Web Conference (WWW), 2024, 2026.
- The International Conference on Learning Representations (ICLR), 2026.
- The International Conference on Computational Linguistics (COLING), 2024.
- International Joint Conference on Artificial Intelligence (IJCAI), 2025.
- European Conference on Information Retrieval (ECIR), 2024 - 2026.
- ACM SIG Conference on Research and Development in Information Retrieval in the Asia Pacific Region (SIGIR-AP), 2025.

### **Journal Reviewers**

- ACM Transactions on Information Systems (TOIS)
- ACM Transactions on Intelligent Systems and Technology (TIST)
- ACM Computing Surveys (CSUR)
- Information Processing and Management (IPM), Elsevier
- IEEE Transactions on Human-Machine Systems (THMS)

## **MENTORING EXPERIENCE**

- Yongan Yu, Undergraduate Student, McGill University, Publish on ACL 2025.
- Qingchen Hu, Undergraduate Student, McGill University, Publish on ACL 2025.
- Xianda Du, Undergraduate Student, Waterloo University, Publish on ACL 2025.
- Yuchen Hui, Master Student, University of Montreal, Publish on TREC iKAT 2024.
- Xinyu Wang, Junior Ph.D. Student, McGill University, Publish on CIKM 2025.

## FULL PUBLICATION LIST

1. **Fengran Mo**, Jian-Yun Nie, Kaiyu Huang, Kelong Mao, Yutao Zhu, Peng Li, Yang Liu. *Learning to Relate to Previous Turns in Conversational Search*, In Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Long Bench, 2023.
2. **Fengran Mo**, Kelong Mao, Yutao Zhu, Yihong Wu, Kaiyu Huang, Jian-Yun Nie. *ConvGQR: Generative Query Reformulation for Conversational Search*, In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Toronto, Canada, 2023.
3. **Fengran Mo**, Yifan Gao, Chuan Meng, Xin Liu, Zhuofeng Wu, Kelong Mao, Pei Chen, Zheng Li, Zhengyang Wang, Xian Li, Bing Yin, Meng Jiang. *UniConv: Unifying Retrieval and Response Generation for Large Language Models in Conversations*, In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL), Vienna, 2025.
4. **Fengran Mo**, Kelong Mao, Ziliang Zhao, Hongjin Qian, Haonan Chen, Yiruo Cheng, Xiaoxi Li, Yutao Zhu, Zhicheng Dou, Jian-Yun Nie. *A Survey of Conversational Search*, in ACM Transactions on Information Systems (TOIS), 2025.
5. **Fengran Mo**, Yifan Gao, Zhuofeng Wu, Xin Liu, Pei Chen, Zheng Li, Zhengyang Wang, Xian Li, Meng Jiang, Jian-Yun Nie. *Leveraging Historical Information to Boost Retrieval-Augmented Generation in Conversations*, Information Processing and Management, 2025.
6. **Fengran Mo**, Yuchen Hui, Yuxing Tian, Zhaoxuan Tan, Chuan Meng, Zhan Su, Kaiyu Huang, Jian-Yun Nie. *Adaptive Personalized Conversational Information Retrieval*, In Proceedings of the 34th ACM International Conference on Information and Knowledge Management (CIKM), Seoul, Korea, 2025.
7. **Fengran Mo**, Chuan Meng, Mohammad Aliannejadi, Jian-Yun Nie. *Conversational Search: From Fundamentals to Frontiers in the LLM Era*, In Proceedings of the 48th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), Padova, Italy, 2025.
8. **Fengran Mo**, Abbas Ghaddar, Kelong Mao, Mehdi Rezagholizadeh, Boxing Chen, Qun Liu, Jian-Yun Nie. *CHIQ: Contextual History Enhancement for Improving Query Rewriting in Conversational Search*, In Proceedings of the 29th Conference on Empirical Methods in Natural Language Processing (EMNLP), Miami, USA, 2024.
9. **Fengran Mo**, Chen Qu, Kelong Mao, Yihong Wu, Zhan Su, Kaiyu Huang, Jian-Yun Nie. *Aligning Query Representation with Rewritten Query and Relevance Judgments in Conversational Search*, In Proceedings of the 33rd ACM International Conference on Information and Knowledge Management (CIKM), Boise, USA, 2024.
10. **Fengran Mo**, Longxiang Zhao, Kaiyu Huang, Yue Dong, Degen Huang, Jian-Yun Nie. *How to Leverage Personal Textual Knowledge for Personalized Conversational Information Retrieval*, In Proceedings of the 33rd ACM International Conference on Information and Knowledge Management (CIKM), Boise, USA, 2024.
11. **Fengran Mo**, Chen Qu, Kelong Mao, Tianyu Zhu, Zhan Su, Kaiyu Huang, Jian-Yun Nie. *History-Aware Conversational Dense Retrieval*, In Findings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Bangkok, Thailand, 2024.
12. Chuan Meng, Francesco Tonolini, **Fengran Mo**, Nikolaos Aletras, Emine Yilmaz, Gabriella Kazai. *Bridging the Gap: From Ad-hoc to Proactive Search in Conversations*, In Proceedings of the 48th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), Padova, Italy, 2025.
13. Chao Huang, **Fengran Mo**, Yufeng Chen, Changhao Guan, Zhenrui Yue, Xinyu Wang, Jinan Xu, Kaiyu Huang. *Boosting Data Utilization for Multilingual Dense Retrieval*, In Proceedings of the 30th Conference on Empirical Methods in Natural Language Processing (EMNLP), Suzhou, China, 2025.

14. Lu Yi, Runlin Lei, **Fengran Mo**, Yanping Zheng, Zhewei Wei, Yuhang Ye. *Future Link Prediction Without Memory or Aggregation*, In Proceedings of the 39th Annual Conference on Neural Information Processing Systems (NIPS), San Diego, USA, 2025.
15. Lu Yi, Jie Peng, Yanping Zheng, **Fengran Mo**, Zhewei Wei, Yuhang Ye, Yue Zixuan, Zengfeng Huang. *TGB-Seq Benchmark: Challenging Temporal GNNs with Complex Sequential Dynamics*, In Proceedings of the 13th International Conference on Learning Representations (ICLR), Singapore, 2025.
16. Jinghan Zhang, Xiting Wang, **Fengran Mo**, Yeyang Zhou, Wanfu Gao, Kunpeng Liu. *Entropy-based Exploration Conduction for Multi-step Reasoning*, In Findings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL), Vienna, Austria, 2025.
17. Yongan Yu, Qingchen Hu, Xianda Du, Jiayin Wang, **Fengran Mo**, Renée Sieber. *WXImpact-Bench: A Disruptive Weather Impact Understanding Benchmark for Evaluating Large Language Models*, In Findings of the 63rd Annual Meeting of the Association for Computational Linguistics (ACL), Vienna, Austria, 2025.
18. Yiruo Cheng, Hongjin Qian, **Fengran Mo**, Yongkang Wu, Zhonghua Li, Qi Ye, Ji-Rong Wen, Zhicheng Dou. *Evolving Graph-Based Context Modeling for Multi-Turn Conversational Retrieval-Augmented Generation*, In Proceedings of the 34th ACM International Conference on Information and Knowledge Management (CIKM), Seoul, Korea, 2025.
19. Yu Liu, Zhuoying Li, Ruifeng Yang, **Fengran Mo**, Cen Chen. *CSMD: Curated Multimodal Dataset for Chinese Stock Analysis*, In Proceedings of the 34th ACM International Conference on Information and Knowledge Management (CIKM), Seoul, Korea, 2025.
20. Xinyu Wang, Jijun Chi, Zhenghan Tai, Tung Sum Thomas Kwok, Hailin He, Zhuhong Li, Yuchen Hua, Muzhi Li, Peng Lu, Suyucheng Wang, Wu Yihong, Huang Jerry, Jingrui Tian, **Fengran Mo**, Yufei Cui and Ling Zhou. *FinSage: A Multi-aspect RAG System for Financial Filings Question Answering*, In Proceedings of the 34th ACM International Conference on Information and Knowledge Management (CIKM), Seoul, Korea, 2025.
21. Rui Qi, Zhibo Man, Yufeng Chen, **Fengran Mo**, Jinan Xu, Kaiyu Huang. *SoT: Structured-of-Thought Prompting Guides Multilingual Reasoning in Large Language Models*, In Findings of the 30th Conference on Empirical Methods in Natural Language Processing (EMNLP), Suzhou, China, 2025.
22. Hongliang Li, Jinan Xu, Gengping Cui, Changhao Guan, **Fengran Mo**, Kaiyu Huang. *Multilingual Collaborative Defense for Large Language Models*, In Findings of the 30th Conference on Empirical Methods in Natural Language Processing (EMNLP), Suzhou, China, 2025.
23. Xinhao Zhang, Jinghan Zhang, **Fengran Mo**, Dongjie Wang, Yanjie Fu, Kunpeng Liu. *LEKA: LLM-Enhanced Knowledge Augmentation*, In Proceedings of the 34th International Joint Conference on Artificial Intelligence (IJCAI), Singapore, 2025.
24. Xinhao Zhang, Jinghan Zhang, **Fengran Mo**, Yuzhong Chen, Kunpeng Liu. *Retrieval-Augmented Feature Generation for Domain-Specific Classification*, In Proceedings of the 25th IEEE International Conference on Data Mining (ICDM), Washington DC, USA, 2025.
25. Yulong Mao, Kaiyu Huang, Changhao Guan, Baoling Gao, **Fengran Mo**, Jinan Xu. *DoRA: Enhancing Parameter-Efficient Fine-Tuning with Dynamic Rank Distribution*, In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Bangkok, Thailand, 2024.
26. Jiayin Wang, **Fengran Mo**, Weizhi Ma, Peijie Sun, Min Zhang, Jian-Yun Nie. *A User-Centric Benchmark for Evaluating Large Language Models*, In Proceedings of the 29th Conference on Empirical Methods in Natural Language Processing (EMNLP), Miami, USA, 2024.
27. Kelong Mao, Chenlong Deng, Haonan Chen, **Fengran Mo**, Zheng Liu, Tetsuya Sakai, Zhicheng Dou. *ChatRetriever: Adapting Large Language Models for Generalized and Robust*

- Conversational Dense Retrieval*, In Proceedings of the 29th Conference on Empirical Methods in Natural Language Processing (EMNLP), Miami, USA, 2024.
28. Kelong Mao, Zheng Liu, Hongjin Qian, **Fengran Mo**, Chenlong Deng, Zhicheng Dou. *RAG-Studio: Towards In-Domain Adaptation Of Retrieval-Augmented Generation Through Self-Alignment*, In Findings of the 29th Conference on Empirical Methods in Natural Language Processing (EMNLP), Miami, USA, 2024.
  29. Yihong Wu, Le Zhang, **Fengran Mo**, Tianyu Zhu, Weizhi Ma, Jian-Yun Nie. *Unifying Graph Convolution and Contrastive Learning in Collaborative Filtering*, In Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Barcelona, Spain, 2024.
  30. Tianyu Zhu, Yansong Shi, Yuan Zhang, Yihong Wu, **Fengran Mo**, Jian-Yun Nie. *Collaboration and Transition: Distilling Item Transitions into Multi-Query Self-Attention for Sequential Recommendation*, In Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (WSDM), Mérida, Mexico, 2024.
  31. Kelong Mao, Hongjin Qian, **Fengran Mo**, Zhicheng Dou, Bang Liu, Xiaohua Cheng, Zhao Cao. *Learning Denoised and Interpretable Session Representation for Conversational Search*, In Proceedings of the ACM Web Conference (WWW), Austin, USA, 2023.
  32. Huimin Chen, **Fengran Mo**, Yanhao Wang, Cen Chen, Jian-Yun Nie, Chengyu Wang, Jamie Cui. *A Customized Text Sanitization Mechanism with Differential Privacy*, In Findings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Toronto, Canada, 2023.
  33. Kelong Mao, Zhicheng Dou, Bang Liu, Hongjin Qian, **Fengran Mo**, Xiangli Wu, Xiaohua Cheng, Zhao Cao. *Search-Oriented Conversational Query Editing*, In Findings of the 62nd Annual Meeting of the Association for Computational Linguistics (ACL), Toronto, 2023.
  34. Kelong Mao, Zhicheng Dou, **Fengran Mo**, Haonan Chen, Hongjin Qian, Jiewen Hou. *Large Language Models Know Your Contextual Search Intent: A Prompting Framework for Conversational Search*, In Findings of the 28th Conference on Empirical Methods in Natural Language Processing (EMNLP), Singapore, 2023.
  35. Le Zhang, Yihong Wu, **Fengran Mo**, Jian-Yun Nie, Aishwarya Agrawal. *MOQA: Zero-Shot Multi-modal Open-domain Question Answering*, In Findings of the 28th Conference on Empirical Methods in Natural Language Processing (EMNLP), Singapore, 2023.
  36. Kelong Mao, Zhicheng Dou, Hongjin Qian, **Fengran Mo**, Xiaohua Cheng, Zhao Cao. *ConvTrans: Transforming Web Search Sessions for Conversational Dense Retrieval*, In Proceedings of the 27th Conference on Empirical Methods in Natural Language Processing (EMNLP), Abu Dhabi, 2022.
  37. Kaiyu Huang, Keli Xiao, **Fengran Mo**, Bo Jin, Zhuang Liu, Degen Huang. *Domain-Aware Word Segmentation for Chinese Language: A Document-Level Context-Aware Model*, in ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), 2021.
  38. Kaiyu Huang, Degen Huang, Zhuang Liu, **Fengran Mo**. *A Joint Multiple Criteria Model in Transfer Learning for Cross-domain Chinese Word Segmentation*, In Proceedings of the 25th Conference on Empirical Methods in Natural Language Processing (EMNLP), Dominican Republic, 2020.

#### ArXiv Survey Papers

1. Kaiyu Huang, **Fengran Mo**, Xinyu Zhang, Hongliang Li, You Li, Yuanchi Zhang, Weijian Yi, Yulong Mao, Jinchun Liu, Yuzhuang Xu, Jinan Xu, Jian-Yun Nie, Yang Liu. *A survey on large language models with multilingualism: Recent advances and new frontiers*, 2025.

2. Zhichao Xu, **Fengran Mo**, Zhiqi Huang, Crystina Zhang, Puxuan Yu, Bei Wang, Jimmy Lin, Vivek Srikumar. *A survey of model architectures in information retrieval*, 2025.

### Workshop Papers

1. Chuan Meng, Jiqun Liu, Mohammad Aliannejadi, **Fengran Mo**, Maarten de Rijke. *Re-Rankers are Effective Relevance Judgment Predictors*, in SIGIR 2025 Large Language Models for Evaluation Workshop.
2. **Fengran Mo**, Bole Yi, Kelong Mao, Chen Qu, Kaiyu Huang, Jian-Yun Nie. *ConvSDG: Session Data Generation for Conversational Search*, in WWW 2024 Information Retrieval Meets Large Language Models Workshop.