

Xinyu Ma

CONTACT INFORMATION

E-mail: xinyuma2016@gmail.com
Web: <https://albert-ma.github.io>

EDUCATION

University of Chinese Academy of Sciences, Beijing, China **2017.9 - 2023.1**

Ph.D., Topic: Information Retrieval
Institute of Computing Technology
Advisor: Jiafeng Guo

Shandong University, Jinan, Shandong, China **2013.9 - 2017.7**

B.S., Software Engineering
GPA Top 1%

WORK EXPERIENCE

Baidu, Beijing, China

Research engineer at Baidu Search

2023.2 - present

- Now working on developing large language model-based query response generation, including answer generation for simple questions and search result summarization for fuzzy queries
- Worked on developing language model-based ranking models for Baidu core search engine (about 1.5 years)
- **The 1st place on the BRIGHT leaderboard** using ReasonRank on Aug.9, 2025
- **EMNLP 2023 Outstanding Paper Award** for the paper entitled “Is Chat-GPT Good at Search? Investigating Large Language Models as Re-Ranking Agent”

Ant Group, Beijing, China

Intern in Search Group

2022.8 - 2023.1

- Worked on designing dense retrieval models for real e-commerce scenario

Sina Weibo, Beijing, China

Intern in Machine Learning Group

2018.3 - 2018.9

- Worked on neural architecture search optimized via RL

BENCHMARK LEADERBOARD

1st Place on MS MARCO Document Ranking Task 2021.1, 2021.4

- We outperform THU-MSR, CMU, Stanford and other teams from different companies and universities, and reached the 1st place twice using PROP
- We are the first team to edge past eval MRR@100 of 0.4.

HONORS AND AWARDS

Beijing Outstanding Graduate, 2023

Special Award for the Director of the ICT, 2021

National Scholarship (Ph.D), 2021

Outstanding Undergraduate Award from Shandong Province, 2017

National Scholarship (B.E.), 2016

PUBLICATIONS

TP-RAG: Benchmarking Retrieval-Augmented Large Language Model Agents for Spatiotemporal-Aware Travel Planning. Hang Ni, Fan Liu, Xinyu Ma, Lixin

Su, Shuaiqiang Wang, Dawei Yin, Hui Xiong, Hao Liu. *The 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2025

CoRanking: Collaborative Ranking with Small and Large Ranking Agents. Wenhan Liu, Xinyu Ma, Yutao Zhu, Lixin Su, Shuaiqiang Wang, Dawei Yin, Zhicheng Dou. *The 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2025

FULTR: A Large-Scale Fusion Learning to Rank Dataset and Its Application for Satisfaction-Oriented Ranking. Yuchen Li, Hao Zhang, Haojie Zhang, Hengyi Cai, Xinyu Ma, Shuaiqiang Wang, Haoyi Xiong, Zhaochun Ren, Maarten de Rijke, Dawei Yin. *The 31st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2025

M2oERank: Multi-Objective Mixture-of-Experts Enhanced Ranking for Satisfaction-Oriented Web Search. Yuchen Li, Hao Zhang, Yongqi Zhang, Xinyu Ma, Wenwen Ye, Naifei Song, Shuaiqiang Wang, Haoyi Xiong, Dawei Yin, Lei Chen. *The 41st International Conference on Data Engineering (ICDE)*, 2025

Replication and Exploration of Generative Retrieval over Dynamic Corpora. Zhen Zhang, Xinyu Ma, Weiwei Sun, Pengjie Ren, Zhumin Chen, Shuaiqiang Wang, Dawei Yin, Maarten de Rijke, Zhaochun Ren. *The 48th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2025

Reproducibility, Replicability, and Insights into Visual Document Retrieval with Late Interaction. Jingfen Qiao, Jia-Huei Ju, Xinyu Ma, Evangelos Kanoulas, Andrew Yates. *The 48th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)*, 2025

The Mirage of Model Editing: Revisiting Evaluation in the Wild. Wanli Yang, Fei Sun, Jiajun Tan, Xinyu Ma, Qi Cao, Dawei Yin, Huawei Shen, Xueqi Cheng. *The 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025

Knowledge Graph Retrieval-Augmented Generation for LLM-based Recommendation. Shijie Wang, Wenqi Fan, Yue Feng, Xinyu Ma, Shuaiqiang Wang, Dawei Yin. *The 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025

Sliding Windows Are Not the End: Exploring Full Ranking with Long-Context Large Language Models. Wenhan Liu, Xinyu Ma, Yutao Zhu, Ziliang Zhao, Shuaiqiang Wang, Dawei Yin, Zhicheng Dou. *The 63rd Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025

Tourrank: Utilizing Large Language Models for Documents Ranking with a Tournament-inspired Strategy. Yiqun Chen, Qi Liu, Yi Zhang, Weiwei Sun, Xinyu Ma, Wei Yang, Daiting Shi, Jiaxin Mao, Dawei Yin. *The 2025 ACM Web Conference (WWW)*, 2025

MAIR: A Massive Benchmark for Evaluating Instructed Retrieval. Weiwei Sun, Zhengliang Shi, Jiulong Wu, Lingyong Yan, Xinyu Ma, Yiding Liu, Min Cao, Dawei Yin, Zhaochun Ren. *The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2024

The Fall of ROME: Understanding the Collapse of LLMs in Model Editing. Wanli Yang, Fei Sun, Jiajun Tan, Xinyu Ma, Du Su, Dawei Yin, Huawei Shen. *The 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP, 2024)*

The Butterfly Effect of Model Editing: Few Edits Can Trigger Large Language Models Collapse. Wanli Yang, Fei Sun, Xinyu Ma, Xun Liu, Dawei Yin, Xueqi Cheng. *The 62nd Annual Meeting of the Association for Computational Linguistics (ACL), 2024*

Instruction Distillation Makes Large Language Models Efficient Zero-shot Rankers. Weiwei Sun, Zheng Chen, Xinyu Ma, Lingyong Yan, Shuaiqiang Wang, Pengjie Ren, Zhumin Chen, Dawei Yin, Zhaochun Ren. *GenRec Workshop of the 32nd ACM International Conference on Information and Knowledge Management (CIKM), 2023*

Pre-training with Aspect-Content Text Mutual Prediction for Multi-Aspect Dense Retrieval. Xiaojie Sun, Keping Bi, Jiafeng Guo, Xinyu Ma, Fan Yixing, Hongyu Shan, Qishen Zhang, Zhongyi Liu. *The 32nd ACM International Conference on Information and Knowledge Management (CIKM), 2023*

Is ChatGPT Good at Search? Investigating Large Language Models as Re-Ranking Agent. Weiwei Sun, Lingyong Yan, Xinyu Ma, Shuaiqiang Wang, Pengjie Ren, Zhumin Chen, Dawei Yin, Zhaochun Ren. *The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP) Outstanding Paper Award*

Pre-training Methods in Information Retrieval Yixing Fan*, Xiaohui Xie*, Yinqiong Cai, Jia Chen, Xinyu Ma, Xiangsheng Li, Ruqing Zhang, Jiafeng Guo. *Foundations and Trends in Information Retrieval (FnTIR)*

A Contrastive Pre-training Approach to Discriminative Autoencoder for Dense Retrieval. Xinyu Ma, Ruqing Zhang, Jiafeng Guo, Yixing Fan, Xueqi Cheng. *The 31st ACM International Conference on Information and Knowledge Management (CIKM), 2022*

Scattered or Connected? An Optimized Parameter-efficient Tuning Approach for Information Retrieval. Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Xueqi Cheng. *The 31st ACM International Conference on Information and Knowledge Management (CIKM), 2022*

A Linguistic Study on Relevance Modeling in Information Retrieval. Yixin Fan, Jiafeng Guo, Xinyu Ma, Ruqing Zhang, Yanyan Lan, Xueqi Cheng. *The Web Conference 2021 (WWW), 2021*

Pre-train a Discriminative Text Encoder for Dense Retrieval via Contrastive Span Prediction. Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Xueqi Cheng. *The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2022*

Pre-train a Discriminative Text Encoder for Dense Retrieval via Contrastive Span Prediction. Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Xueqi Cheng. *The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2022*

B-PROP: Bootstrapped Pre-training with Representative Words Prediction

for Ad-hoc Retrieval. Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Yingyan Li, Xueqi Cheng. *The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR**)*, 2021

PROP: Pre-training with Representative Words Prediction for Ad-hoc Retrieval. Xinyu Ma, Jiafeng Guo, Ruqing Zhang, Yixing Fan, Xiang Ji, Xueqi Cheng. *The 14th ACM International Conference on Web Search and Data Mining (**WSDM**)*, 2021