

# Aobo Xu

School of Economics and Management

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Research directions: Reinforcement learning, Large language models, Knowledge graph

## Education

2025–Present Visiting Ph.D. Student, Economic Informatics, Lomonosov Moscow State University, Supported by the China Scholarship Council (Grant No. 20250450059)

Supervisor: Vladimir Nikolaevich Sidorenko

2023–Present Ph.D. Student, Management Science and Engineering, China University of Petroleum (East China)

Supervisor: Ling Jian

2020–2023 M.M., Management Science and Engineering, China University of Petroleum (East China)

Supervisor: Ling Jian

2016–2020 B.Ed., Education, Tianjin University

Supervisor: Yang Liu

## Selected Honors and Awards

2024 KDD CUP OAG-Challenge, Honorable Prize (11th, \$500), Poster Presentation on KDD Cup OAG-Challenge Workshop at KDD 2024

2024 China University of Petroleum The 6th Qinglan Forum for Doctoral Students, Best Poster Award (¥1,000)

2023 Shandong Provincial Graduate Innovation Achievement Award

2023 “Challenge Cup” National College Student Extracurricular Academic Science and Technology Works Competition, First Prize (¥33,000)

2022 Shandong Province “Internet Plus” College Student Innovation and Entrepreneurship Competition, Silver Award (¥13,000)

2021 “Teddy Cup” Data Analysis Skills Competition, First Prize

## Publications

<sup>†</sup> *corresponding author*

### Journals

- [1] **Aobo Xu**, Ling Jian<sup>†</sup>, Yue Yin, & Na Zhang. UISA: User Information Separating Architecture for Commodity Recommendation Policy with Deep Reinforcement Learning. *ACM Transactions on Recommender Systems*, 2024.
- [2] Songyuan Liu, Peng Zhou, Mei Wang, & **Aobo Xu**. An agent-based approach to modeling power firms' emission reduction strategies and market dynamics. *Applied Energy*, 2025.
- [3] Min Liu, Yundong Yuan, **Aobo Xu**, Tianhu Deng & Ling Jian<sup>†</sup>. A learning-based artificial bee colony algorithm for operation optimization in gas pipelines. *Information Sciences*, 2025.
- [4] Kai Shao, Xinmin Wang, Min Liu, **Aobo Xu**, & Ling Jian<sup>†</sup>. Efficient Pump Scheduling for Large-scale Multi-Product Pipelines Using Deep Reinforcement Learning. *International Journal of Adaptive Control and Signal Processing*, 2024.

### Conferences

- [1] **Aobo Xu**, & Ling Jian<sup>†</sup>. A Deep News Headline Generation Model with REINFORCE Filter. *2023 International Joint Conference on Neural Networks (IJCNN)*, IEEE, 2023.

### Preprints

- [1] **Aobo Xu**, Bingyu Chang, Qingpeng Liu, & Ling Jian<sup>†</sup>. Text-Driven Neural Collaborative Filtering Model for Paper Source Tracing. *arXiv preprint arXiv:2407.17722*, 2024.

## Patents

- [1] **Aobo Xu**, Chonzhi Rao, Bingyu Chang, Xuan Zhang, & Ling Jian. Knowledge graph intelligent construction model based on knowledge transfer learning strategy. Patents for Inventions, Publication (CN202311705384.2A), 2024.
- [2] Xiao Gu, Zihan Xiang, **Aobo Xu**, Chonzhi Rao, & Ling Jian. Qingdao dialect voice recognition model based on Transformer. Patents for Inventions, Publication (CN202210797092.5A), 2024.

## Professional Activities

- Reviewer, International Joint Conference on Neural Networks (IJCNN), 2025.
- Reviewer, KDD CUP OAG-Challenge, 2024.