

Chongming Gao 高崇铭

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Research Interests

Data Mining, Information Retrieval and Artificial Intelligence, with a focus on leveraging methods such as graph analysis or causal inference, to a wide range of questions including spatio-temporal data analysis, conversational recommender system, and so on..

Experiences

2020.07–Now
Research Intern

Kuaishou.

Research intern under the supervision of Biao Li and Peng Jiang.
Researches topics: interactive and conversational recommender systems.

2023.03–Now
Research Intern

Alibaba DAMO Academy.

Research intern under the supervision of Ziqian Chen and Jinyang Gao.
Research topics: AI for social sciences.

2019.03–2019.09
Research Intern

Alibaba AI Labs.

Research intern under the supervision of Hao Wang and Zaiqing Nie.
Internship achievement: solved shared account-aware recommendation problem in Tmall Genie.

Education

2020.09–Now
Ph.D.

University of Science and Technology of China (USTC).

School of Information Science and Technology.
Advisor: [Xiangnan He](#).
Research topics: conversational recommender systems; causal recommendation.

2016.09–2019.06
M.Eng.

University of Electronic Science and Technology of China (UESTC).

Department of Computer Science and Technology.
Supervisor: [Junming Shao](#).
Thesis: Trajectory Semantic Representation and Location Recommender Systems.

2012.09–2016.06
B.Eng.

University of Electronic Science and Technology of China (UESTC).

Yingcai Honors College (Elite program of UESTC). GPA: 3.81, Ranking: 9/72
Supervisor: [Junming Shao](#), since the junior year.
Thesis: Synchronization-inspired Co-clustering and Its Application to Gene Expression Data.

Tutorial

Tutorial
(3 hours)

RecSys 2021 Tutorial on Conversational Recommendation: Formulation, Methods, and Evaluation.

Wenqiang Lei, [Chongming Gao](#), Maarten de Rijke
RecSys 2021 Tutorial.

Research Publications

AI Open
Survey

Advances and Challenges in Conversational Recommender Systems: A Survey.

[Chongming Gao](#), [Wenqiang Lei](#), [Xiangnan He](#), [Maarten de Rijke](#), [Tat-Seng Chua](#)
AI Open. Vol. 2. (2021) 100-126.

- SIGIR '23 **Alleviating Matthew Effect of Offline Reinforcement Learning in Interactive Recommendation.**
Chongming Gao, Kexin Huang, Jiawei Chen, Yuan Zhang, Biao Li, Peng Jiang, Shiqi Wang, Zhong Zhang, Xiangnan He
ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '23)
(CCF A).
- TOIS '23 **CIRS: Bursting Filter Bubbles by Counterfactual Interactive Recommender System.**
Chongming Gao, Wenqiang Lei, Jiawei Chen, Shiqi Wang, Xiangnan He, Shijun Li, Biao Li, Yuan Zhang, Peng Jiang
Transactions on Information Systems (TOIS '23)
(CCF A).
- WWW '23 **On the Theories Behind Hard Negative Sampling for Recommendation.**
Wentao Shi, Jiawei Chen, Fuli Feng, Jizhi Zhang, Junkang Wu, Chongming Gao, Xiangnan He
International World Wide Web Conference, 2023 (WWW '23)
(CCF A).
- CIKM '22 **KuaiRand: An Unbiased Sequential Recommendation Dataset with Randomly Exposed Videos.**
(Resource Paper)
Chongming Gao, Shijun Li, Yuan Zhang, Jiawei Chen, Biao Li, Xiangnan He, Wenqiang Lei, Peng Jiang
International Conference on Information and Knowledge Management, 2022 (CIKM '22)
(CCF B).
- CIKM '22 **KuaiRec: A Fully-observed Dataset and Insights for Evaluating Recommender Systems.**
Chongming Gao, Shijun Li, Wenqiang Lei, Biao Li, Peng Jiang, Jiawei Chen, Xiangnan He, Jiaxin Mao, Tat-Seng Chua
International Conference on Information and Knowledge Management, 2022 (CIKM '22)
(CCF B).
- IS '20 **Semantic Trajectory Representation and Retrieval via Hierarchical Embedding.**
Chongming Gao, Chen Huang, Zhong Zhang, Qinli Yang, Junming Shao
Information Sciences (IS'20)
(SJR Q1, H index: 154, CiteScore: 6.90, Impact Factor: 5.524).
- EMNLP '20 **Revisiting Representation Degeneration Problem in Language Modeling.**
Zhong Zhang, Chongming Gao, Cong Xu, Rui Miao, Qinli Yang, Junming Shao
Findings of EMNLP, 2020.
(CORE2020 Rank: A, CCF B).
- DASFAA '19 **Towards Robust Arbitrarily Oriented Subspace Clustering** Best Paper Award.
Zhong Zhang, Chongming Gao, Chongzhi Liu, Qinli Yang, Junming Shao
International Conference on Database Systems for Advanced Applications (DASFAA'19),
(CORE2020 Rank B, CCF B)
- DASFAA'19 **BLOMA: Explain Collaborative Filtering via Boosted Local Rank-One Matrix Approximation.**
Chongming Gao, Shuai Yuan, Zhong Zhang, Hongzhi Yin, Junming Shao
International Conference on Database Systems for Advanced Applications (DASFAA'19),
(CORE2020 Rank B, CCF B)
- KBS '19 **Semantic Trajectory Compression via Multi-resolution Synchronization-based Clustering.**
Chongming Gao, Yi Zhao, Ruizhi Wu, Qinli Yang, Junming Shao
Knowledge-Based Systems (KBS'19),
(SJR Q1, H Index: 94, CiteScore: 7.01, Impact Factor: 5.101)

- ICDM '19 **Online Budgeted Least Squares with Unlabeled Data.**
Chen Huang, Peiyan Li, Chongming Gao, Qinli Yang, Junming Shao
IEEE International Conference on Data Mining (ICDM'19),
(CORE2020 Rank: A*, CCF B).
- ICDM '19 **Generating Reliable Friends via Adversarial Training to Improve Social Recommendation.**
Junliang Yu, Min Gao, Hongzhi Yin, Jundong Li, Chongming Gao, Qinyong Wang
IEEE International Conference on Data Mining (ICDM'19),
(CORE2020 Rank: A*, CCF B).
- DASFAA '19 **SemiSync: Semi-supervised Clustering by Synchronization.**
Zhong Zhang, DiDi Kang, Chongming Gao, Junming Shao
International Conference on Database Systems for Advanced Applications (DASFAA'19),
(CORE2020 Rank B, CCF B)
- ICDM '17 **Synchronization-inspired Co-clustering and Its Application to Gene Expression Data.**
Junming Shao, Chongming Gao, Wei Zeng, Jingkuan Song, Qinli Yang
IEEE International Conference on Data Mining (ICDM'17),
(CORE2020 Rank: A*, CCF B).

Awards

- 2023 *SIGIR Student Travel Award* (CCF A).
- 2019 One of our papers won the **Best Paper Award** of DASFAA'19 (CORE2020 Rank B, CCF B).
- 2019 *Outstanding Master's Thesis Award* of UESTC. (86/3744)
- 2019 *Outstanding Graduate Student Award* of UESTC.
- 2016 **Rank No.1** in Undergraduate Thesis Defense of UESTC. *Outstanding Undergraduation Thesis.*
- 2016 *Outstanding Undergraduate Student Award* of UESTC. Top 10 in Yingcai Honors College.
- 2014 *Meritorious Winner* for CSIAM's China Undergraduate Mathematical Contest in Modeling.
- 2013 *First Prize* in Sichuan Contest District in China Undergraduate Mathematical Contest in Modeling.
- 2012 *Tang Lixin Scholarship* of UESTC. Top 60 out of over 25,000 undergraduate and graduate students.
- 2012 **Rank No.1** in entering UESTC from Yunnan Province (Score: 614).

Computer Skills

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|-------------|---|
| Programming | Python, MATLAB, JAVA, C/C++, HTML5+CSS3+Javascript |
| Prototyping | L ^A T _E X, Adobe Illustrator, Adobe Photoshop |

Interests

Reading, Badminton, Jogging, Diving, Climbing, Photography.