

# 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 [Wenqiang Lei](#), Peng Jiang, Biao Li, and [Xiangnan He](#).  
Researches topics: interactive and conversational recommender systems.

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.*

- TOIS '23 **CIRS: Bursting Filter Bubbles by Counterfactual Interactive Recommender System.**  
Under review 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.**  
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).

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## Awards

- 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).

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## Computer Skills

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| Programming | Python, MATLAB, JAVA, C/C++, $\text{\LaTeX}$ , HTML5+CSS3+Javascript |
| Prototyping | Adobe Illustrator, Adobe Photoshop                                   |

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## Interests

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