# QIDONG LIU

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#### **EDUCATION**

City University of Hong Kong, Hong Kong SAR, China

Aug 2022 - Present

Joint Ph.D., Data Science

Supervisor: Dr. Xiangyu Zhao [HOMEPAGE]

Lab: AML Lab [HOMEPAGE]
Affiliation: School of Data Science

GPA: 3.80/4.0

Xi'an Jiaotong University, Xi'an, China

Mar 2021 - Present

Ph.D., Automation

Supervisor: Prof. Feng Tian [HOMEPAGE]

Lab: XJTU-MKFE [HOMEPAGE]

Affiliation: The Faculty of Electronic Information

GPA: 90.92/100

Xi'an Jiaotong University, Xi'an, China

Sep 2019 - Jan 2021

M.Sc., Cyberspace Security Supervisor: Prof. Feng Tian GPA: 90.07/100 (Top 2)

Xi'an Jiaotong University, Xi'an, China

Sep 2015 - Jun 2019

B.Eng., Automation GPA: 85.9/100

Graduation Thesis: Analysis of motion sensor on mobile terminal and design of Wechat Mini Programme

#### RESEARCH INTERESTS

• Recommendation: Pre-training, Sequential, Debias

• Large Language Model: Multi-task, Applications

• Causal Inference: Treatment Effect Estimation

• Data Mining for Applications: Smart Education, Intelligent Healthcare

#### **PUBLICATIONS**

#### [Google Scholar]

(\* represents the corresponding author, † represents equal contribution.)

[J4]. **Qidong Liu**, Feng Tian\*, Qinghua Zheng and Qianying Wang, Disentangling Interest and Conformity for Eliminating Popularity Bias in Session-Based Recommendation. *Knowledge and Information Systems* (KAIS'23, CCF-B Journal). [PDF]

[J3]. **Qidong Liu**<sup>†</sup>, Jiaxi Hu<sup>†</sup>, Yutian Xiao<sup>†</sup>, Jingtong Gao and Xiangyu Zhao\*, Multimodal Recommender Systems: A Survey, arXiv preprint arXiv:2302.03883. [PDF]

[C5]. Qidong Liu, Feng Tian\*, Weihua Ji and Qinghua Zheng. "A New Representation Learning Method for Individual Treatment Effect Estimation: Split Covariate Representation Network" *The 12th Asian Conference on Machine Learning* (ACML'20, CCF-C Conference). [PDF]

- [C4]. Chengxi Li<sup>†</sup>, Yejing Wang<sup>†</sup>, **Qidong Liu**<sup>†</sup>, Xiangyu Zhao<sup>\*</sup>, Wangyu Wang, Yiqi Wang, Lixin Zou, Wenqi Fan and Qing Li. "STRec: Sparse Transformer for Sequential Recommendations" The 17th ACM Conference on Recommender Systems (RecSys'23, CCF-B Conference).
- [C3]. Yuhao Wang, Xiangyu Zhao\*, Bo Chen, **Qidong Liu**, Huifeng Guo, Huanshuo Liu, Yichao Wang, Rui Zhang and Ruiming Tang, PLATE: A Prompt-enhanced Paradigm for Multi-Target Cross-Domain Recommendation, The 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR'23, CCF-A Conference).
- [C2]. Fang Nan, Feng Tian\*, Yaozhi Wang, Qidong Liu, Yanze Wu, Jizhong Zhang, Huan Li, Haiping Zhu, Yuzhe Yao, Heng Zhang, Yaqiang Wu and Qinghua Zheng. Inferring Actions and Joint Attention From Dual-view Classroom Videos, AAAI 2023 Workshop Artificial Intelligence for Education (AI4Edu'23) [PDF]
- [J2]. Wenqi Fan, Xiangyu Zhao\*, Xiao Chen, Jingran Su, Jingtong Gao, Lin Wang, Qidong Liu, Yiqi Wang, Han Xu, Lei Chen, Qing Li, A Comprehensive Survey on Trustworthy Recommender Systems. arXiv preprint arXiv:2209.10117. [PDF]
- [J1]. Haiping Zhu, Chengcheng Zhao, Qidong Liu, Qinghua Zheng, Jiangwei Zeng, Feng Tian\* and Yan Chen, Reciprocal-Constrained Interpretable Job Recommendation. Journal of Computer Research and Development, 2021, 58(12): 2660-2672. (CCF-A Chinese Journal) [PDF]
- [C1]. Chen, Yan, Jiangwei Zeng, Haiping Zhu, Feng Tian\*, Yu Liu, Qidong Liu and Qinghua Zheng. "A Behavior-Item Based Hybrid Intention-Aware Frame for Sequence Recommendation." International Conference on e-Business Engineering. Springer, Cham, 2019. (ICEBE'19) [PDF]

#### COMPETITIONS

• The 7th Place in TianChi CCKS2023-PromptCBLUE Competition (Common Channel) [RANK]	2023
• The 3rd Place in YIDIANZIXUN Code Competition (CTR prediction channel). [RANK] [CODE]	2021

### **AWARDS**

• IJCAI Travel Grant Award	2023
• Graduate Student First-class Academic Scholarship	2020
• Outstanding Graduate Award of XJTU	2020
• XJTU Siyuan Scholarship	2017

#### INTERNSHIP

Tencent Jarvis Lab May 2023 - Now

• Large Language Models for Medical Applications

#### **PROJECTS**

Diffusion Augmentation for Sequential Recommendation (with Huawei Noah's Ark) Feb 2023 - Jun 2023

- Mentor: Fan Yan & Zhaocheng Du
- We design a Diffusion Model based augmentation method for sequential recommendation.
- We conduct comprehensive experiments on three datasets and three SRS backbones to illustrate the efficiency and flexibility of the method.
- The paper is submitted to CIKM'23.

Medication Recommendation for Multi-center Hospital (with Tencent Jarvis Lab) Aug 2022 - Nov 2022

- Mentor: Zhaopeng Qiu [HOMEPAGE]
- We constructed a contrastive pretrain model with prompt tuning for multi-center medication recommendation.

- We achieved SOTA performance compared with advanced medication recommendation models and multi-domain recommendation methods.
- The paper is submitted to TOIS.

# Employment Recommendation for undergraduate (with XJTU Job Center)

2020 - 2021

- We collected five-year employment data of undergraduate in XJTU.
- We proposed a reciprocal-constrained employment recommendation model based on multi-task learning.
- The model gives service to undergraduate in XJTU.

## Micro-grid Load Prediction (with TEBA)

2019 - 2020

- We constructed a LSTM-based and Multi-source Data Fusion model for load prediction.
- We achieved 95% accuracy under 20%EP standard and the model is applied in real production environment.
- I completed a patent draft.

#### TEACHING EXPERIENCE

• The ACM Web Conference Tutorial Speaker: Trustworthy Recommender Systems [website]	May 2023
• Hong Kong Institute for Data Science Invited Talk: Pretrain Model for Multi-center Medication Recommendation [POSTER]	Mar 2023
• National University of Defense Technology Invited Talk: Intelligent Tutor System	Jul 2021
• Xi'an Jiaotong Univeristy  Teaching Assistant: Big Data analytic and knowledge discovery	Feb 2020 - Jun 2020

Invited Talk: Intelligent Tutor System		
• Xi'an Jiaotong Univeristy <b>Teaching Assistant</b> : Big Data analytic and knowledge discovery	Feb 2020 - Jun 2020	
SERVICES		
Journal Reviewer		
• IEEE Transactions on Knowledge and Data Engineering (TKDE)	2023	
• IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)	2023	
Program Chair & Conference Reviewer		
• ACM SIGIR Conference on Information Retrieval in the Asia Pacific (SIGIR-AP)	2023	
• ACM International Conference on Multimedia (MM)	2023	
• ACM Conference on Recommender Systems (RecSys)	2023	
• ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2023	
• IEEE International Conference on Data Mining (ICDM)	2022	

[Update on July 2023]