# Jiarui Qin

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## **EDUCATION**

## Shanghai Jiao Tong University

Sept. 2019 - Mar. 2022 (expected)

MSc. in Computer Science

o GPA: 3.83/4.0

o Advisors: Prof. Weinan Zhang and Prof. Yong Yu.

## Shanghai Jiao Tong University

Sept. 2015 - Jun. 2019

o B.Eng. in Software Engineering

o GPA: Overall: 88.5/100 | Major: 89.7/100 (Ranking: 9/94)

o Advisors: Prof. Weinan Zhang and Prof. Yong Yu.

## RESEARCH INTERESTS

My research interests lie in general area of machine learning and deep learning, especially their applications in networks, recommender systems and computational advertising.

## **PUBLICATIONS**

## Deep Learning for Click-Through Rate Estimation

- o Weinan Zhang, Jiarui Qin, Wei Guo, Ruiming Tang, Xiuqiang He.
- o In Proceedings of 30th International Joint Conference on Artificial Intelligence. IJCAI 2021 Survey Track.

## User Behavior Retrieval for Click-Through Rate Prediction

- o Jiarui Qin, Weinan Zhang, Xin Wu, Jiarui Jin, Yuchen Fang, Yong Yu.
- o In Proceedings of the 43th International ACM SIGIR Conference on Research and Development in Information Retrieval. **SIGIR 2020**.

#### An Efficient Neighborhood-based Interaction Model for Recommendation on Heterogeneous Graph

- o Jiarui Jin, **Jiarui Qin**, Yuchen Fang, Kounianhua Du, Weinan Zhang, Yong Yu, Zheng Zhang, Alexander J. Smola.
- In Proceeding of the 25nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining. KDD 2020.

#### Sequential Recommendation with Dual Side Neighbor-based Collaborative Relation Modeling

- o Jiarui Qin, Kan Ren, Yuchen Fang, Weinan Zhang, Yong Yu.
- In Proceedings of the 13th ACM International Conference on Web Search and Data Mining. WSDM 2020.

#### Lifelong Sequential Modeling with Personalized Memorization for User Response Prediction

- o Kan Ren\*, **Jiarui Qin**\*, Yuchen Fang\*(equal contribution), Weinan Zhang, Lei Zheng, Weijie Bian, Guorui Zhou, Jian Xu, Yong Yu, Xiaoqiang Zhu, Kun Gai.
- In Proceedings of the 42th International ACM SIGIR Conference on Research and Development in Information Retrieval. SIGIR 2019.

## Deep Landscape Forecasting for Real-time Bidding Advertising

- o Kan Ren, Jiarui Qin, Lei Zheng, Weinan Zhang, Yong Yu.
- In Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining. KDD 2019.

## Deep Recurrent Survival Analysis

- o Kan Ren, Jiarui Qin, Lei Zheng, Zhengyu Yang, Weinan Zhang, Lin Qiu, Yong Yu.
- o In Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence. AAAI 2019.

## **INTERNSHIP**

#### Huawei Noah's Ark Lab

Research Intern

Sept. 2020 -

- o Research Intern in Recommendation & Searching Lab of Noah's Ark Lab.
- o Retrieval-based method for prediction task on multi-field categorical data.

#### Alibaba Group

Research Intern

Sept. 2018 - Jan. 2019

- o Research Intern in Alimama Ranking&ML Group for Display Ads.
- o Memory Networks for Long User Sequence Modeling: Research about modeling the extremely long user behavior sequences to improve CTR prediction performance in online display advertising of Taobao.

#### HONORS AND AWARDS

- o Excellent Intern, Huawei Noah's Ark Lab. 2020
- o Innovation Pioneer, Huawei Noah's Ark Lab. 2020
- o National Scholarship (Top 2% in CS Department), Chinese Ministry of Education. 2020
- o SIGIR 2020 Student Travel Awards, ACM. 2020
- o KDD 2019 Student Travel Awards, ACM. 2019
- Wish Scholarship (Top 5% in SE Department). 2017
- o B-class Scholarship for Excellent Academic Performance (Top 10 % in SJTU). 2016
- o C-class Scholarship for Excellent Academic Performance (Top 30 % in SJTU). 2017
- o Member of SJTU RONG CHANG CHUCAI Program (Top 2% in SJTU). 2016-2019

## RESEARCH EXPERIENCE

#### **User Behavior Retrieval for CTR Prediction**

Nov. 2019 - April. 2020

- Designed a framework for CTR prediction which will first retrieve most relevant user behaviors instead of using recent N behaviors.
- Accepted as an oral paper at SIGIR 2020, first author.

## Sequential Recommendation with CF Relations Modeling

Feb. 2019 - Aug. 2019

- Designed a new sequential recommendation method that considers cross neighbor collaborative relations modeling that improve the recommendation performance.
- Accepted as an poster paper at **WSDM 2020**, first author.

## Lifelong User Modeling

Sept. 2019 - Jan. 2019

- o Design a new RNN-based method for market price distribution for real-time bidding advertising.
- o Accepted as an oral paper at SIGIR 2019, co-first author.
- o The work is done during the internship at Alibaba Group, Beijing, China.

#### Deep Learning for Bid Landscape Forecasting

Oct. 2018 - Jan. 2019

- Tackles with lifelong sequential user behavior modeling and captures multi-scale sequential dependencies which is an applied methodologies in user response prediction problems.
- Accepted as an oral paper at KDD 2019, second author.

#### Deep Learning for Survival Analysis

Oct. 2017 - May. 2018

- Utilized deep learning for flexible time-to-event data modeling and it is first work using auto-regressive modeling for survival analysis.
- o Accepted as an oral paper at AAAI 2019, second author.

## **SERVICE**

- PC member of FCS journal.
- o Reviewer of CIKM, WSDM, SIGIR, AAAI, KDD, CSUR.
- Teaching Assistant for undergraduate course SE117-Programming and Data Structure, School of Software, SJTU, 2016.

## **OPEN-SOURCE PROJECTS**

- o Implementation of UBR4CTR.
- o Implementation of SCoRe.
- o Implementation of HPMN.
- o Implementation of DRSA.
- o Implementation of DLF.

## **SKILLS AND TESTS**

- **Programming Language**: Python, C/C++, Java, Javascript.
- Framework: Tensorflow, Pytorch, DGL.
- **TOEFL**: 100 (L:24, S:23, R:26, W:27).
- CET-6: 597.CET-4: 639.