

ZHENGXIAO DU

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Department of Computer Science and Technology

Tsinghua University, P.R. China

EDUCATION

Tsinghua University

B.E. in Computer Science

Beijing, P.R. China

Fall 2016 - Fall 2020

- GPA: 3.91/4.00 (Rank 1/158); Admitted on basis of performance on national college admission exam (3/330, 000)
- Awarded the *Elite Collegiate Award by China Computer Federation* (outstanding academic performance and research experience, 73 winners nationwide)
- Selected to *Spark Innovative Talent Cultivation Program at Tsinghua University* (Top 3%, on basis of outstanding research performance)
- Visiting student to Cornell University in 2019

PUBLICATION

1. **Zhengxiao Du**, Xiaowei Wang, Hongxia Yang, Jingren Zhou, and Jie Tang. "Sequential Scenario-Specific Meta Learner for Online Recommendation." *SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, p. 2895-2904, 2019. arXiv 1906.00391
2. **Zhengxiao Du**, Jie Tang and Yuhui Ding. "POLAR++: Active One-shot Personalized Article Recommendation." *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2019. (accepted) Link
3. Yifeng Zhao, Jie Tang, and **Zhengxiao Du**. "EFCNN: A Restricted Convolutional Neural Network for Expert Finding." *Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, p. 96-107, 2019. Link
4. **Zhengxiao Du**, Jie Tang, and Yuhui Ding. "POLAR: Attention-Based CNN for One-Shot Personalized Article Recommendation." *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD)*, p. 675-690, 2018. Link

Under Review:

1. Himank Yadav¹, **Zhengxiao Du**¹, Thorsten Joachims. "Learning Fair Ranking Policies from Biased Feedback." (Under review as a conference submission.) arXiv 1911.08054
2. **Zhengxiao Du**, Chang Zhou, Jiangchao Yao, Hongxia Yang, and Jie Tang. "CogGraph-KR: Cognitive Graph for Multi-hop Knowledge Graph Reasoning." (Under review as a conference submission.) arXiv 1906.05489

RESEARCH EXPERIENCE

Department of Computer Science, Cornell University

Research Assistant to Prof. Thorsten Joachims

Ithaca, USA

Jun 2019 - Oct 2019

- Designed a learning-to-rank algorithm to learn the ranking policy from implicit feedback with fairness constraints and completed empirical evaluations. A first-author (equal contribution) paper is under review in KDD 2020.

Department of Computer Science and Technology, Tsinghua University

Research Assistant to Prof. Jie Tang

Beijing, China

Jun 2017 - Jun 2019

- Proposed an attention-based Convolutional Neural Network (CNN) for related article recommendations, combined a one-shot function to provide personalized recommendations and completed empirical evaluations. A first-author paper was accepted by ECML/PKDD 2018.

¹Equal contribution

- Extended the previous CNN article recommender model with active learning to solve the cold-start problem in article recommendations and completed empirical experiments. A first-author paper is accepted by IEEE TKDE.
- (*Collaborating with Alibaba*) Applied meta learning to solve scenario-aware recommendations in cold-start scenarios and completed empirical experiments. A first-author paper was accepted by KDD 2019.
- (*Collaborating with Alibaba*) Proposed a novel algorithm to infer new facts from existing knowledge graphs with explainable reasoning processes, especially on relation types with only a few training instances and completed empirical experiments. A first-author paper is under review in KDD 2020.
- Helped to run the experiment on one of the three datasets in the paper “EFCNN: A Restricted Convolutional Neural Network for Expert Finding”, which was accepted by PAKDD 2019.

SELECTED AWARDS AND HONORS

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|---|---------------|
| • Elite Collegiate Award by China Computer Federation | 2019 |
| <i>73 winners nationwide; Outstanding academic performance and research experience</i> | |
| • The Zhong Shimo Scholarship at Tsinghua University | 2019 |
| <i>3/158; The highest award for undergraduates in the CS Department</i> | |
| • The Cai Xiong Scholarship at Tsinghua University | 2019 |
| <i>10/3300; The highest research award for undergraduates at Tsinghua</i> | |
| • The Scholarship of Comprehensive Excellence at Tsinghua University | 2018 and 2019 |
| <i>Top 5%; Outstanding academic performance and research experience</i> | |
| • The Hongqian Electronics Scholarship at Tsinghua University | 2017 |
| <i>Top 10%; Outstanding academic performance</i> | |
| • Freshman Scholarship at Tsinghua University | 2016 |
| <i>Top 10%; Awarded due to excellent performance on national college admission exam</i> | |

PROFESSIONAL AND EXTRACURRICULAR EXPERIENCE

DAMO Academy, Alibaba Group *Research Intern*

Beijing, China
Sep 2018 - Jun 2019

- Designed an algorithm for personalized purchase recommendations for customers in different scenarios in the Guess-What-You-Like section on Taobao App

Student Association of Science and Technology, Tsinghua University *Committee Member*

Beijing, China
Sep 2017 - Jun 2018

- Organized weekly meetings to share advancements in computer science
- Helped to organize several technology contests, including a quantitative trading contest with Jane Street and Student Curricular Academic and Technology Works Contest at Tsinghua University.

ADDITIONAL INFORMATION

Interests

- Debate: Led the Computer Science Department’s debate team in the campus debate contest at Tsinghua University in 2018

Language Skills & Tests

- TOEFL: 109 (Reading 30; Listening 29; Speaking 23; Writing 27)
- GRE: 332 (Verbal 162; Quantitative 170)

Programming Skills

- Languages: Python, Java, C++, C, JavaScript, MATLAB, Bash
- Machine Learning: PyTorch, Tensorflow, Keras, scikit-learn