

# ZHENGXIAO DU

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Department of Computer Science and Technology

Tsinghua University, P.R. China

## EDUCATION

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**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), *Tsinghua Excellent (Bachelor) Graduate* (for top 2% of all the graduates)
- 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

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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. **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 Yadav<sup>1</sup>, **Zhengxiao Du**<sup>1</sup>, 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

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**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.

**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.

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<sup>1</sup>Equal 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.
- 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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|---|---------------|
| • Tsinghua Excellent (Bachelor) Graduate<br><i>top 2% of all the graduates</i>  | 2020          |
| • Elite Collegiate Award by China Computer Federation<br><i>73 winners nationwide; Outstanding academic performance and research experience</i> | 2019          |
| • The Zhong Shimo Scholarship at Tsinghua University<br><i>3/158; The highest award for undergraduates in the CS Department</i>                 | 2019          |
| • The Cai Xiong Scholarship at Tsinghua University<br><i>10/3300; The highest research award for undergraduates at Tsinghua</i>                 | 2019          |
| • The Scholarship of Comprehensive Excellence at Tsinghua University<br><i>Top 5%; Outstanding academic performance and research experience</i> | 2018 and 2019 |

## PROFESSIONAL AND EXTRACURRICULAR EXPERIENCE

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### **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

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### **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