

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), *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

1. **Zhengxiao Du***, Yujie Qian*, Xiao Liu, Ming Ding, Jiezhong Qiu, Zhilin Yang, Jie Tang. “GLM: General Language Model Pretraining with Autoregressive Blank Infilling.” Annual Meeting of the Association for Computational Linguistics (ACL), 2022 (accepted).
2. Xiao Liu*, Kaixuan Ji*, Yicheng Fu*, Weng Lam Tam, **Zhengxiao Du**, Zhilin Yang, Jie Tang (2022). “P-Tuning v2: Prompt Tuning Can Be Comparable to Fine-tuning Universally Across Scales and Tasks.” Annual Meeting of the Association for Computational Linguistics (ACL), 2022 (accepted).
3. **Zhengxiao Du**, Chang Zhou, Jiangchao Yao, Ming Ding, Hongxia Yang, Jie Tang. “CogKR: Cognitive Graph for Multi-hop Knowledge Reasoning.” *IEEE Transactions on Knowledge and Data Engineering* (TKDE), 2021. (accepted)
4. Himank Yadav*, **Zhengxiao Du***, Thorsten Joachims. “Policy-Gradient Training of Fair and Unbiased Ranking Functions.” International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), p. 1044-1053, 2021.
5. **Zhengxiao Du**, Jie Tang and Yuhui Ding. “POLAR++: Active One-shot Personalized Article Recommendation.” *IEEE Transactions on Knowledge and Data Engineering* (TKDE). 33(6): 2709-2722 (2021)
6. **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.
7. **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.

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.

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.
- 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
<i>top 2% of all the graduates</i> | 2020 |
| • Elite Collegiate Award by China Computer Federation
<i>73 winners nationwide; Outstanding academic performance and research experience</i> | 2019 |
| • The Zhong Shimo Scholarship at Tsinghua University
<i>3/158; The highest award for undergraduates in the CS Department</i> | 2019 |
| • The Cai Xiong Scholarship at Tsinghua University
<i>10/3300; The highest research award for undergraduates at Tsinghua</i> | 2019 |
| • The Scholarship of Comprehensive Excellence at Tsinghua University
<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
<i>Research Intern</i> | Beijing, China
<i>Sep 2018 - Jun 2019</i> |
| • 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
<i>Committee Member</i> | Beijing, China
<i>Sep 2017 - Jun 2018</i> |
| • 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