

# TIANXIANG SUN

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## EDUCATION

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### **Fudan University**

Ph.D. Student, Computer Science

School of Computer Science

Advisor: Prof. Xipeng Qiu & Prof. Xuanjing Huang

*September 2019 - Present*

Shanghai, China

### **Xidian University**

Bachelor of Engineering, Software Engineering

School of Computer Science and Technology (Excellent Track)

GPA: 3.8/4.0 (top 1%), Outstanding Graduate

*September 2015 - June 2019*

Xi'an, China

### **Shengli NO.1 Senior High School**

First Prize of China High School Biology Olympiad

*September 2012 - June 2015*

Dongying, Shandong, China

## INTERNSHIP

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### **Shanghai AI Lab**

Research Intern

*March 2023 - Present*

Shanghai, China

### **Alibaba DAMO Academy**

Research Intern

*December 2022 - March 2023*

Hangzhou, China

### **Amazon Web Services**

Applied Scientist Intern

Amazon Shanghai AI Lab

Supervisor: Prof. Zheng Zhang

*October 2019 - August 2020*

Shanghai, China

## RESEARCH INTERESTS

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My research interests lie in natural language processing and machine learning, specifically in:

- large language models and their optimization/inference-efficient algorithms
- knowledge-enhanced pre-training
- neural-based multitask learning for NLP

## ACADEMIC SERVICES

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### **Student Seminar Co-Chair**

CCL 2023

### **Conference Reviewer / PC Member**

ACL (2021, 2022, 2023)

EMNLP (2021, 2022)

COLING (2020, 2022)

ICML (2022)

NeurIPS (2022, 2023)

AAAI (2021)

IJCAI (2021)

## HONORS & AWARDS

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Most Influential Paper Award of Sci. China Tech Sci.	<i>March 2022</i>
National Scholarship for Graduate Student	<i>October 2020</i>
Outstanding Graduate of Xidian University	<i>June 2019</i>
Honorable Mention in MCM/ICM	<i>February 2018</i>
First Prize of National MCM (Shaanxi division)	<i>October 2017</i>
Principal Scholarship in School of Computer Science and Technology (four times)	<i>2017 - 2019</i>
First Prize Scholarship of Xidian University (four times)	<i>2015 - 2018</i>
First Prize in China High School Biology Olympiad	<i>June 2014</i>

## PUBLICATIONS

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*\* denotes equal contribution.*

- MOSS: Building Conversational Language Models from Synthetic Data**  
Tianxiang Sun, Xiaotian Zhang, Zhengfu He, Peng Li, Qinyuan Cheng, Hang Yan, Xiangyang Liu, Yunfan Shao, Qiong Tang, Xingjian Zhao, Ke Chen, Yining Zheng, Zhejian Zhou, Ruixiao Li, Jun Zhan, Yunhua Zhou, Linyang Li, Xiaogui Yang, Lingling Wu, Zhangyue Yin, Xuanjing Huang, Xipeng Qiu  
*To be appeared 2023*
- Multi-Task Pre-Training of Modular Prompt for Few-Shot Learning**  
Tianxiang Sun\*, Zhengfu He\*, Qin Zhu, Xipeng Qiu, Xuanjing Huang  
*ACL 2023*
- BBTv2: Towards a Gradient-Free Future with Large Language Models**  
Tianxiang Sun, Zhengfu He, Hong Qian, Yunhua Zhou, Xuanjing Huang, Xipeng Qiu  
*EMNLP 2022*
- BERTScore is Unfair: On Social Bias in Language Model-Based Metrics for Text Generation**  
Tianxiang Sun, Junliang He, Xipeng Qiu, Xuanjing Huang  
*EMNLP 2022*
- Black-Box Tuning for Language-Model-as-a-Service**  
Tianxiang Sun, Yunfan Shao, Hong Qian, Xuanjing Huang, Xipeng Qiu  
*ICML 2022 (Spotlight)*
- Paradigm Shift in Natural Language Processing**  
Tianxiang Sun, Xiangyang Liu, Xipeng Qiu, Xuanjing Huang  
*Machine Intelligence Research (Invited Paper)*
- A Simple Hash-Based Early Exiting Approach For Language Understanding and Generation**  
Tianxiang Sun, Xiangyang Liu, Wei Zhu, Zhichao Geng, Lingling Wu, Yilong He, Yuan Ni,

Guotong Xie, Xuanjing Huang, Xipeng Qiu  
*Findings of ACL 2022*

8. **CoLAKE: Contextualized Language and Knowledge Embedding**  
Tianxiang Sun, Yunfan Shao, Xipeng Qiu, Qipeng Guo, Yaru Hu, Xuanjing Huang, Zheng Zhang  
*COLING 2020*
9. **Learning Sparse Sharing Architectures for Multiple Tasks**  
Tianxiang Sun\*, Yunfan Shao\*, Xiaonan Li, Pengfei Liu, Xipeng Qiu, Xuanjing Huang  
*AAAI 2020 (Oral)*
10. **CodeIE: Large Code Generation Models are Better Few-Shot Information Extractors**  
Peng Li\*, Tianxiang Sun\*, Qiong Tang, Hang Yan, Yuanbin Wu, Xuanjing Huang, Xipeng Qiu  
*ACL 2023*
11. **DiffusionBERT: Improving Generative Masked Language Models with Diffusion Models**  
Zhengfu He\*, Tianxiang Sun\*, Kuanning Wang, Xuanjing Huang, Xipeng Qiu  
*ACL 2023*
12. **Towards Efficient NLP: A Standard Evaluation and A Strong Baseline**  
Xiangyang Liu\*, Tianxiang Sun\*, Junliang He, Lingling Wu, Xinyu Zhang, Hao Jiang, Zhao Cao, Xuanjing Huang, Xipeng Qiu  
*NAACL 2022 (Oral)*
13. **Late Prompt Tuning: A Late Prompt Could Be Better Than Many Prompts**  
Xiangyang Liu, Tianxiang Sun, Xuanjing Huang, Xipeng Qiu  
*Findings of EMNLP 2022*
14. **Pre-trained Models for Natural Language Processing: A Survey**  
Xipeng Qiu, Tianxiang Sun, Yige Xu, Yunfan Shao, Ning Dai, Xuanjing Huang  
*SCIENCE CHINA Technological Sciences (Invited Paper, most influential paper award)*
15. **Improving Contrastive Learning of Sentence Embeddings from AI Feedback**  
Qinyuan Cheng, Xiaogui Yang, Tianxiang Sun, Linyang Li, Xipeng Qiu  
*Findings of ACL 2023*
16. **Accelerating BERT Inference for Sequence Labeling via Early-Exit**  
Xiaonan Li, Yunfan Shao, Tianxiang Sun, Hang Yan, Xipeng Qiu, Xuanjing Huang  
*ACL 2021*
17. **Does Syntax Matter? A Strong Baseline for Aspect-Based Sentiment Analysis with RoBERTa**  
Junqi Dai, Hang Yan, Tianxiang Sun, Pengfei Liu, Xipeng Qiu  
*NAACL 2021*