

TIANXIANG SUN

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EDUCATION

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

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

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

Student Seminar Co-Chair

CCL 2023

Conference Reviewer / PC Member

ACL (2021, 2022, 2023)

EMNLP (2021, 2022)

COLING (2020, 2022)

ICML (2022)

ICLR (2023)
NeurIPS (2022, 2023)
AAAI (2021)
IJCAI (2021)

HONORS & AWARDS

ByteDance Scholarships	<i>October 2023</i>
National Scholarships	<i>October 2023</i>
WAIC Yunfan Award (Rising Star)	<i>July 2023</i>
Fudan Academic Star	<i>May 2023</i>
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

** denotes equal contribution.*

1. MOSS Technical Report

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

2. Multitask Pre-Training of Modular Prompt for Chinese Few-Shot Learning

Tianxiang Sun*, Zhengfu He*, Qin Zhu, Xipeng Qiu, Xuanjing Huang
ACL 2023

3. BBTv2: Towards a Gradient-Free Future with Large Language Models

Tianxiang Sun, Zhengfu He, Hong Qian, Yunhua Zhou, Xuanjing Huang, Xipeng Qiu
EMNLP 2022

4. BERTScore is Unfair: On Social Bias in Language Model-Based Metrics for Text Generation

Tianxiang Sun, Junliang He, Xipeng Qiu, Xuanjing Huang
EMNLP 2022

5. Black-Box Tuning for Language-Model-as-a-Service

Tianxiang Sun, Yunfan Shao, Hong Qian, Xuanjing Huang, Xipeng Qiu
ICML 2022 (Spotlight)

6. **Paradigm Shift in Natural Language Processing**
Tianxiang Sun, Xiangyang Liu, Xipeng Qiu, Xuanjing Huang
Machine Intelligence Research (Invited Paper)
7. **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