TIANXIANG SUN

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EDUCATION

Fudan University *September 2019 - Present*
Ph.D. Student, Computer Science Shanghai, China
School of Computer Science
Advisor: Prof. Xipeng Qiu & Prof. Xuanjing Huang

Xidian University *September 2015 - June 2019*
Bachelor of Engineering, Software Engineering Xi'an, China
School of Computer Science and Technology (Excellent Track)
GPA: 3.8/4.0 (top 1%), Outstanding Graduate

Shengli NO.1 Senior High School *September 2012 - June 2015*
First Prize of China High School Biology Olympiad Dongying, Shandong, China

INTERNSHIP

Shanghai AI Lab *March 2023 - Present*
Research Intern Shanghai, China

Alibaba DAMO Academy *December 2022 - March 2023*
Research Intern Hangzhou, China

Amazon Web Services *October 2019 - August 2020*
Applied Scientist Intern Shanghai, China
Amazon Shanghai AI Lab
Supervisor: Prof. Zheng Zhang

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)

NeurIPS (2022, 2023)

AAAI (2021)

IJCAI (2021)

HONORS & AWARDS

Fudan Academic Star	*May 2023*
Most Influential Paper Award of Sci. China Tech Sci.	*March 2022*
National Scholarship for Graduate Student	*October 2020*
Outstanding Graduate of Xidian University	*June 2019*
Honorable Mention in MCM/ICM	*February 2018*
First Prize of National MCM (Shaanxi division)	*October 2017*
Principal Scholarship in School of Computer Science and Technology (four times)	*2017 - 2019*
First Prize Scholarship of Xidian University (four times)	*2015 - 2018*
First Prize in China High School Biology Olympiad	*June 2014*

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 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