Xiaozhi Wang 王晓智

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EDUCATION

Tsinghua University *Ph.D. in Computer Science and Technology. Advised by Prof. Juanzi Li.*

Tsinghua University

B.Eng. in Computer Science and Technology. Advised by Prof. Zhiyuan Liu.

EXPERIENCES

University of Illinois at Urbana-Champaign *Visiting Student. Hosted by Prof. Heng Ji.*

Montréal Institute for Learning Algorithm Visiting Student. Hosted by Prof. Jian Tang.

SELECTED PUBLICATIONS (BY TOPIC)

Beijing, China Aug. 2020 – June 2025 (Expected) Beijing, China

Aug. 2016 – June 2020

Urbana, IL, United States Feb. 2024 – Aug. 2024

Montréal, QC, Canada July 2019 – Sept. 2019

My research interest lies in the interaction of knowledge and large language models (LLMs), covering three topics: (1) **Understanding LLMs**: To mechanistically understand inner workings of LLMs and discover principles of intelligent systems, (2) **Knowledge-enhanced LLM**: To improve LLMs with knowledge bases, (3) **Knowledge Acquisition**: To enable LLMs understand and acquire knowledge. I have led multiple publications at top NLP and ML venues with 2,800+ citations.

Understanding the Cognitive Nature of LLM

Finding Skill Neurons in Pre-trained Transformer-based Language Models

Xiaozhi Wang*, Kaiyue Wen*, Zhengyan Zhang, Lei Hou, Zhiyuan Liu, Juanzi Li. In EMNLP, 2022.

On Transferability of Prompt Tuning for Natural Language Processing

Yusheng Su*, *Xiaozhi Wang**, Yujia Qin, Chi-Min Chan, Yankai Lin, Huadong Wang, Kaiyue Wen, Zhiyuan Liu, Peng Li, Juanzi Li, Lei Hou, Maosong Sun, Jie Zhou. In *NAACL-HLT*, 2022.

COPEN: Probing Conceptual Knowledge in Pre-trained Language Models

Hao Peng*, Xiaozhi Wang*, Shengding Hu, Hailong Jin, Lei Hou, Juanzi Li, Zhiyuan Liu, Qun Liu. In EMNLP, 2022.

Exploring Universal Intrinsic Task Subspace for Few-Shot Learning via Prompt Tuning

Yujia Qin*, *Xiaozhi Wang**, Yusheng Su, Yankai Lin, Ning Ding, Jing Yi, Weize Chen, Zhiyuan Liu, Juanzi Li, Lei Hou, Peng Li, Maosong Sun, Jie Zhou. *IEEE Transactions on Audio Speech, and Language Processing*, 2024.

Knowledge-enhanced LLM

KEPLER: A Unified Model for Knowledge Embedding and Pre-trained Language Representation

Xiaozhi Wang, Tianyu Gao, Zhaocheng Zhu, Zhengyan Zhang, Zhiyuan Liu, Juanzi Li, Jian Tang. Transactions of the Association for Computational Linguistics, 2021. ESI Highly Cited Paper. TACL Top 10 most cited paper.

KoLA: Carefully Benchmarking World Knowledge of Large Language Models

Jifan Yu*, *Xiaozhi Wang**, Shangqing Tu*, Shulin Cao, Daniel Zhang-Li, Xin Lv, Hao Peng, Zijun Yao, Xiaohan Zhang, Hanming Li, Chunyang Li, Zheyuan Zhang, Yushi Bai, Yantao Liu, Amy Xin, Kaifeng Yun, Linlu Gong, Nianyi Lin, Jianhui Chen, Zhili Wu, Yunjia Qi, Weikai Li, Yong Guan, Kaisheng Zeng, Ji Qi, Hailong Jin, Jinxin Liu, Yu Gu, Yuan Yao, Ning Ding, Lei Hou, Zhiyuan Liu, Xu Bin, Jie Tang, Juanzi Li. In *ICLR*, 2024.

*Co-first author.

Knowledge Acquisition

MAVEN: A Massive General Domain Event Detection Dataset

Xiaozhi Wang, Ziqi Wang, Xu Han, Wangyi Jiang, Rong Han, Zhiyuan Liu, Juanzi Li, Peng Li, Yankai Lin, Jie Zhou. In *EMNLP*, 2020.

MAVEN-ERE: A Unified Large-scale Dataset for Event Coreference, Temporal, Causal, and Subevent Relation Extraction *Xiaozhi Wang**, Yulin Chen*, Ning Ding, Hao Peng, Zimu Wang, Yankai Lin, Xu Han, Lei Hou, Juanzi Li, Zhiyuan Liu, Peng Li, Jie Zhou. In *EMNLP*, 2022.

MAVEN-ARG: Completing the Puzzle of All-in-One Event Understanding Dataset with Event Argument Annotation *Xiaozhi Wang*, Hao Peng, Yong Guan, Kaisheng Zeng, Jianhui Chen, Lei Hou, Xu Han, Yankai Lin, Zhiyuan Liu, Ruobing Xie, Jie Zhou, Juanzi Li. In *ACL*, 2024.

CLEVE: Contrastive pre-training for event extraction

Ziqi Wang*, Xiaozhi Wang*, Xu Han, Yankai Lin, Lei Hou, Zhiyuan Liu, Peng Li, Juanzi Li, Jie Zhou. In ACL, 2022.

The Devil is in the Details: On the Pitfalls of Event Extraction Evaluation

Hao Peng*, *Xiaozhi Wang**, Feng Yao, Kaisheng Zeng, Lei Hou, Juanzi Li, Zhiyuan Liu, Weixing Shen. In *Findings of ACL*, 2023.

OmniEvent: A Comprehensive, Fair, and Easy-to-Use Toolkit for Event Understanding

Hao Peng*, *Xiaozhi Wang**, Feng Yao, Zimu Wang, Chuzhao Zhu, Kaisheng Zeng, Lei Hou, Juanzi Li. In *EMNLP* (*Demonstrations*), 2023.

Preserving Knowledge Invariance: Rethinking Robustness Evaluation of Open Information Extraction Ji Qi*, Chuchun Zhang*, *Xiaozhi Wang*, Kaisheng Zeng, Jifan Yu, Jinxin Liu, Lei Hou, Juanzi Li, Xu Bin. In *EMNLP*, 2023. *Outstanding Paper Award*

HMEAE: Hierarchical Modular Event Argument Extraction

Xiaozhi Wang*, Ziqi Wang*, Xu Han, Zhiyuan Liu, Juanzi Li, Peng Li, Maosong Sun, Jie Zhou, Xiang Ren. In EMNLP, 2019.

Adversarial Training for Weakly Supervised Event Detection

Xiaozhi Wang*, Xu Han*, Zhiyuan Liu, Maosong Sun, Peng Li. In NAACL-HLT, 2019.

Adversarial Multi-lingual Neural Relation Extraction

Xiaozhi Wang*, Xu Han*, Yankai Lin, Zhiyuan Liu, Maosong Sun. In COLING, 2018.

PROFESSIONAL SERVICES

Area Chair: ACL Rolling Review, ACL 2024, EMNLP 2024
Session Chair: ACL 2024
Co-organizer: AAAI 2025 Workshop "Towards Knowledgeable Foundation Models"
Program Committee Member/Reviewer: AAAI, IJCAI, COLING, SIGIR, ACL, EMNLP, NeurIPS, IEEE TASLP

HONORS AND AWARDS

- 2024 China National Scholarship. Awarded to top graduate students (10 per year).
- 2023 EMNLP Outstanding Paper Award.
- 2020 Outstanding Graduate of Tsinghua University.
- Outstanding Undergraduate Dissertation of Tsinghua University.
- 2019 Zhong Shimo Scholarship. Highest award (3 per year) of the department of computer science and technology. Tsinghua Future Scholar Fellowship. Awarded to the top 10 undergraduates working on research at Tsinghua University. China Computer Federation (CCF) Outstanding Undergraduate Award. Awarded to 73 CS undergraduates nationwide.
- 2017 Golden Award. International Collegiate Programming Contest (ACM-ICPC) Qingdao Regional. Golden Award. CCF Collegiate Computer Systems and Programming Contest (CCSP).
- 2016 Golden Award. China Collegiate Programming Contest (CCPC) Changchun Regional.

TEACHING EXPERIENCE

Data Mining Undergraduate Student Course, Teaching Assistant

Tsinghua University In 2020, 2021, 2022