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RESEARCH INTERESTS

Vision-Language Learning, Multimodal Large Language Model.

EDUCATION

Ph.D. Student, Harbin Institute of Technology, China 2020.09 - Present
Major: Computer Science. Advisor: Prof. Wanxiang Che

B.E., Northeastern University, China 2016.09 - 2020.06
Major: Software Engineering

PUBLICATIONS

Exploring Multi-Grained Concept Annotations for Multimodal Large Language Models.
Xiao Xu, Tianhao Niu, Yuxi Xie, Libo Qin, Wanxiang Che, Min-Yen Kan.
Under Review.

ManagerTower: Aggregating the Insights of Uni-Modal Experts for Vision-Language Representation Learning.
Xiao Xu, Bei Li, Chenfei Wu, Shao-Yen Tseng, Anahita Bhiwandiwala, Shachar Rosenman, Vasudev Lal, Wanxiang Che, Nan Duan.
Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL). Oral. 2023.

BridgeTower: Building Bridges Between Encoders in Vision-Language Representation Learning.
Xiao Xu, Chenfei Wu, Shachar Rosenman, Vasudev Lal, Wanxiang Che, Nan Duan.
Proceedings of the AAAI Conference on Artificial Intelligence (AAAI). Oral. 2023.

Text is no more Enough! A Benchmark for Profile-based Spoken Language Understanding.
Xiao Xu^{*}, Libo Qin^{*}, Kaiji Chen, Guoxing Wu, Linlin Li, Wanxiang Che.
Proceedings of the AAAI Conference on Artificial Intelligence (AAAI). Oral. 2022.

Semantic-Guided Image Augmentation with Pre-trained Models.
Bohan Li, **Xiao Xu**, Xinghao Wang, Yutai Hou, Yunlong Feng, Feng Wang, Xuanliang Zhang, Qingfu Zhu, Wanxiang Che.
Proceedings of the AAAI Conference on Artificial Intelligence (AAAI). 2024.

Modularized Pre-training for End-to-end Task-oriented Dialogue.
Libo Qin, **Xiao Xu**, Lehan Wang, Yue Zhang, Wanxiang Che.
IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP). 2023.

AGIF: An Adaptive Graph-Interactive Framework for Joint Multiple Intent Detection and Slot Filling.
Libo Qin, **Xiao Xu**, Wanxiang Che, Ting Liu.
Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing: Findings (EMNLP-Findings). 2020.

Dynamic Fusion Network for Multi-Domain End-to-end Task-Oriented Dialog.
Libo Qin, **Xiao Xu**, Wanxiang Che, Yue Zhang, Ting Liu.
Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL). 2020.

V-DPO: Mitigating Hallucination in Large Vision Language Models via Vision-Guided Direct Preference Optimization.

Yuxi Xie, Guanzhen Li, **Xiao Xu**, Min-Yen Kan.
Findings of the Association for Computational Linguistics: EMNLP 2024. 2024.

Pro-HAN: A Heterogeneous Graph Attention Network for Profile-Based Spoken Language Understanding.

Dechuan Teng, Chunlin Lu, **Xiao Xu**, Wanxiang Che, Libo Qin.
IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). 2024.

OpenSLU: A Unified, Modularized, and Extensible Toolkit for Spoken Language Understanding.

Libo Qin, Qiguang Chen, **Xiao Xu**, Yunlong Feng, Wanxiang Che.
Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL). Demo. 2023.

A Preliminary Evaluation of ChatGPT for Zero-shot Dialogue Understanding.

Wenbo Pan, Qiguang Chen, **Xiao Xu**, Wanxiang Che, Libo Qin.
Arxiv Preprint. 2023.

A Two-Stage Framework with Self-Supervised Distillation For Cross-Domain Text Classification.

Yunlong Feng, Bohan Li, Libo Qin, **Xiao Xu**, Wanxiang Che.
The 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING). 2024.

GL-GIN: Fast and Accurate Non-Autoregressive Model for Joint Multiple Intent Detection and Slot Filling.

Libo Qin, Fuxuan Wei, Tianbao Xie, **Xiao Xu**, Wanxiang Che, Ting Liu.
Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics (ACL). Oral. 2021.

CORAL: Order-Agnostic Language Modeling for Efficient Iterative Refinement.

Yuxi Xie, Anirudh Goyal, Xiaobao Wu, Xunjian Yin, **Xiao Xu**, Min-Yen Kan, Liangming Pan, William Yang Wang.
Arxiv Preprint. 2024.

In-Context Transfer Learning: Demonstration Synthesis by Transferring Similar Tasks.

Dingzirui Wang, Xuanliang Zhang, Qiguang Chen, Longxu Dou, **Xiao Xu**, Rongyu Cao, Yingwei Ma, Qingfu Zhu, Wanxiang Che, Binhua Li, Fei Huang, Yongbin Li.
Arxiv Preprint. 2024.

Self-Constructed Context Decompilation with Fined-grained Alignment Enhancement.

Yunlong Feng, Yang Xu, Dechuan Teng, Honglin Mu, **Xiao Xu**, Libo Qin, Wanxiang Che, Qingfu Zhu.
Findings of the Association for Computational Linguistics: EMNLP 2024. 2024.

M³CoT: A Novel Benchmark for Multi-Domain Multi-step Multi-modal Chain-of-Thought.

Qiguang Chen, Libo Qin, Jin Zhang, Zhi Chen, **Xiao Xu**, Wanxiang Che. Proceedings of the 62th Annual Meeting of the Association for Computational Linguistics (ACL). Oral. 2024.

Don't be Contradicted with Anything! CI-ToD: Towards Benchmarking Consistency for Task-oriented Dialogue System.

Libo Qin, Tianbao Xie, Shijue Huang, Qiguang Chen, **Xiao Xu**, Wanxiang Che.
Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP). Poster. 2021.

IPGAN: Generating Informative Item Pairs by Adversarial Sampling.

Guibing Guo, Huan Zhou, Bowei Chen, Zhirong Liu, **Xiao Xu**, Xu Chen, Zhenhua Dong, Xiuqiang He.

IEEE Transactions on Neural Networks and Learning Systems (TNNLS). 2020.

EXPERIENCES	Visiting Student in National University of Singapore (NUS), Singapore. 2023.09 - 2024.09 Topic: Vision-Language Learning, Multimodal Large Language Model. Advisor: Prof. Min-Yen Kan.
	Research Intern in MSRA NLC Group, Beijing, China. 2022.01 - 2023.01 Topic: Vision-Language Learning. Advisor: Dr. Nan Duan, Dr. Chenfei Wu.
SERVICES	Conference Reviewer: ICLR 2025, NeurIPS 2024, EMNLP 2024 & 2022, ACL 2023, AACL 2023, NLPCC 2023 & 2022. Community: MLNLP-2022 Outstanding Organizer.
SKILLS	Programming: Python, C/C++, Java, Shell, PyTorch, TensorFlow.
AWARDS	Stars of Tomorrow Internship Award of Microsoft Research Asia 2023 National Encouragement Scholarship (for undergraduate student) (4/293) 2019 Mathematical Contest In Modeling, Meritorious Winner (7.09%) 2019 National Scholarship (for undergraduate student) (5/293) 2018 National Scholarship (for undergraduate student) (10/420) 2017 Top Ten Campus Singers of Northeastern University (Hunnan) 2016