

HUANXUAN LIAO (廖桓萱)

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🎓 EDUCATION

Institute of Automation, Chinese Academy of Sciences (CASIA), Beijing 2023 – Now

PhD in Computer Science. In NLP, Supervisor: [Shizhu He](#) and [Kang Liu](#)

North China Electric Power University (NCEPU), Beijing 2019 – 2023

Bachelor of Engineering in Intelligence Science and Technology (Innovation Class). Ranking 1/13

👥 INTERNSHIP/PROJECT EXPERIENCE

ByteDance Beijing Jun. 2025 – Now

Intern Research Intern (Efficient VLM)

Ant Group Beijing Feb. 2025 – May 2025

Intern Research Intern (Long Context)

Prompt Compression Based on Global and Local Strategy

- Implemented dynamic routing soft token global compression based on Qformer and MLP, and local compression based on classification

Survey of Long Context Modeling

- Completed the writing of the survey based on my own long context modeling repository

💡 RESEARCH INTERESTS

- Long Context Modeling:
 - Survey: [Awesome-LLM-Long-Context-Modeling](#) (GitHub Stars > 1.7K)
 - Context Compression: [HyCo2](#) (ArXiv 2025)
 - KV Compression: [SparK](#) (ArXiv 2025)
- Efficient Reasoning and Knowledge Activation:
 - Instruction Learning: [TAGI](#) (NeurIPS 2024)
 - Knowledge Awakening: [AAG](#) (COLING 2025)
 - Knowledge Internalization: [SKIntern](#) (COLING 2025)
 - Knowledge Collaboration: [NesyCD](#) (AAAI 2025)
 - Knowledge Transfer: [DATA](#) (ArXiv 2025)
- Efficient Multimodal Models and Reasoning

📖 PUBLICATIONS

(* stands for equal contribution; Listed in reverse chronological order.)

[15] [Huanxuan Liao](#), Yixing Xu, Shizhu He, Guanchen Li, Xuanwu Yin, Dong Li, Emad Barsoum, Jun Zhao, Kang Liu. [SparK: Query-Aware Unstructured Sparsity with Recoverable KV Cache Channel Pruning](#). (Preprint, 2025)

[14] [Huanxuan Liao](#), Shizhu He, Yupu Hao, Jun Zhao, Kang Liu. [Beyond Hard and Soft: Hybrid Context Compression for Balancing Local and Global Information Retention](#). (Preprint, 2025)

[13] Yuqiao Tan, Shizhu He, [Huanxuan Liao](#), Jun Zhao, Kang Liu. [Better wit than wealth: Dynamic Parametric Retrieval Augmented Generation for Test-time Knowledge Enhancement](#). (Preprint, 2025)

[12] Jiaheng Liu, Dawei Zhu, Zhiqi Bai, Yancheng He, [Huanxuan Liao](#), Haoran Que, Zekun Wang, Chenchen Zhang, Ge Zhang, Jiebin Zhang, Yuanxing Zhang, Zhuo Chen, Hangyu Guo, Shilong Li, Ziqiang Liu, Yong Shan, Yifan Song, Jiayi Tian, Wenhao Wu, Zhejian Zhou, Ruijie Zhu, Junlan Feng, Yang Gao, Shizhu He, Zhoujun Li, Tianyu Liu, Fanyu Meng, Wenbo Su, Yingshui Tan, Zili Wang, Jian Yang, Wei Ye, Bo Zheng, Wangchunshu Zhou, Wenhao Huang, Sujian Li, Zhaoxiang Zhang. [A Comprehensive Survey on Long Context Language Modeling](#). (Preprint, 2025)

- [11] [Huanxuan Liao](#), Shizhu He, Yupu Hao, Jun Zhao, Kang Liu. [DATA: Decomposed Attention-based Task Adaptation for Rehearsal-Free Continual Learning](#). (Preprint, 2025)
- [10] Wangtao Sun, Haotian Xu, [Huanxuan Liao](#), Xuanqing Yu, Zhongtao Jiang, Shizhu He, Jun Zhao, Kang Liu. [VaiBot: Shuttle Between the Instructions and Parameters of Large Language Models](#). (Preprint, 2025)
- [9] Xiangnnan Wu, Shizhu He, [Huanxuan Liao](#), Jun Zhao, Kang Liu. Differentiated Instruction for Student Language Models: Contrastive Error Self-Correction via Refinement Feedback of Large Language Models. (Preprint, 2025)
- [8] Yupu Hao, Pengfei Cao, Zhuoran Jin, [Huanxuan Liao](#), Yubo Chen, Kang Liu, Jun Zhao. [Evaluating Personalized Tool-Augmented LLMs from the Perspectives of Personalization and Proactivity](#). (Preprint, 2025)
- [7] [Huanxuan Liao](#), Shizhu He, Yao Xu, Yuanzhe Zhang, Kang Liu, Jun Zhao. [Neural-Symbolic Collaborative Distillation: Advancing Small Language Models for Complex Reasoning Tasks](#). (AAAI 2025, CCF-A)
- [6] Yupu Hao, Pengfei Cao, Zhuoran Jin, [Huanxuan Liao](#), Yubo Chen, Kang Liu, Jun Zhao. [CITI: Enhancing Tool Utilizing Ability in Large Language Models without Sacrificing General Performance](#). (AAAI 2025, CCF-A)
- [5] [Huanxuan Liao](#), Shizhu He, Yupu Hao, Xiang Li, Yuanzhe Zhang, Jun Zhao, Kang Liu. [SKIntern: Internalizing Symbolic Knowledge for Distilling Better CoT Capabilities into Small Language Models](#). (COLING 2025, CCF-B)
- [4] [Huanxuan Liao](#), Shizhu He, Yao Xu, Yuanzhe Zhang, Kang Liu, Shengping Liu, Jun Zhao. [Awakening Augmented Generation: Learning to Awaken Internal Knowledge of Large Language Models for Question Answering](#). (COLING 2025, CCF-B)
- [3] [Huanxuan Liao](#), Shizhu He, Yao Xu, Yuanzhe Zhang, Yanchao Hao, Shengping Liu, Kang Liu, Jun Zhao. [From Instance Training to Instruction Learning: Task Adapters Generation from Instructions](#). (NeurIPS 2024, CCF-A)
- [2] Yixuan Weng, Zhiqi Wang, [Huanxuan Liao](#), Shizhu He, Shengping Liu, Kang Liu, Jun Zhao. [LMTuner: An user-friendly and highly-integrable Training Framework for fine-tuning Large Language Models](#). (Preprint, 2023)
- [1] [Huanxuan Liao](#), Shizhu He, Yao Xu, Kang Liu, Jun Zhao. [Dynamic Weighted Neural Bellman-Ford Network for Knowledge Graph Reasoning](#). (CCKS 2023, Springer)

♥ AWARDS AND SCHOLARSHIPS

Scholarships & Awards

Climbing Second Prize Scholarship	Dec. 2024
Beijing Outstanding Graduate Awards, Beijing Ministry of Education	Jun. 2023
China National Scholarship (<i>top scholarship in China; 0.2% domestically</i>), Ministry of Education	Dec. 2022
China National Scholarship (<i>top scholarship in China; 0.2% domestically</i>), Ministry of Education	Dec. 2021
SiFang Society Scholarship, NCEPU	Dec. 2020

Competition

National Third Prize, Information Security Competition	Aug. 2022
National Excellence, College Student Innovation and Entrepreneurship Project	Dec. 2021
Beijing Third Prize, Internet +	Aug. 2021

⋄ PROFESSIONAL SERVICES

Conference Reviewing: ACL ARR 2024, 2025. NeurIPS 2025.

Community: [Awesome-LLM-Long-Context-Modeling](#) 1.7k+ Stars.