

# 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*

## 💡 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 (SELECTED) [[FULL LIST](#)]

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

- [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)
- [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)
- [Huanxuan Liao](#), Shizhu He, Yupu Hao, Jun Zhao, Kang Liu. [DATA: Decomposed Attention-based Task Adaptation for Rehearsal-Free Continual Learning](#).
- [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)
- [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)
- [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)
- [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)

## 👤 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)*

Context Compression Based on Global and Local Strategy

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

## Survey of Long Context Modeling

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

## KV Compression

- Perform dynamic unstructured channel pruning while restoring the pruned channels during attention computation

## ♥ AWARDS AND SCHOLARSHIPS

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### 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

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

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