# CHENLONG (CHARLIE) ZHANG

### **EDUCATION**

Institute of Automation, Chinese Academy of Sciences, Beijing, China

2023 - Present

M.S. in Pattern Recognition and Intelligent Systems (GPA: 3.82/4.0)

Supervised by Prof. Yubo Chen and Prof. Jun Zhao

Henan University, Henan, China

2019 - 2023

B.S. in Software Engineering (GPA: 3.84/4.0, Rank: 1/388)

#### </> INTERNSHIPS

#### **Carnegie Mellon University**

Jun. 2025 - Nov. 2025

Research Intern, advised by Xiang Yue and Graham Neubig

The Hong Kong University of Science and Technology (Guangzhou) Feb. 2025 – May. 2025 *Research Intern*, advised by Jiaheng Wei

NLPR, Institute of Automation, Chinese Academy of Sciences

Sep. 2022 - Jul. 2023

Research Intern, advised by Pengfei Cao

## **RESEARCH INTERESTS**

**Understanding the mechanisms of reasoning LMs**: How do LMs compose complex reasoning patterns during pre-/mid-/post-training? What is the limit of reasoning LLMs for seemingly impossible tasks? What is the role of the environment for agentic reasoning?

Understanding model-data interactions: How to design efficient algorithms for language models in data- and supervision-limited conditions? How to remove hazardous/private data from LLMs? Event Modeling & Social Simulation with LLMs: How do large language models model complex real-world events? Is there a way for LLMs to interact with the world? Can social simulation on complex events lead to better decision-making?

#### **PUBLICATIONS**

- 1. **Charlie Zhang**, Graham Neubig, and Xiang Yue. On the Interplay of Pre-Training, Mid-Training, and RL on Reasoning Language Models
- 2. Zhuoran Jin, Ruilin Xu, **Chenlong Zhang**, Yupu Hao, Kejian Zhu, Hongbang Yuan, Pengfei Cao, Daojian Zeng, Yubo Chen, Kang Liu, and Jun Zhao. Pixels Lie, Code Doesn't: Thinking with Visual Programming for "Seemingly Impossible" Multimodal Agentic Reasoning Tasks. Submitted to ICLR 2026.
- 3. Jiachun Li, Shaoping Huang, Zhuoran Jin, **Chenlong Zhang**, Pengfei Cao, Yubo Chen, Kang Liu and Jun Zhao. MMR-Life: Piecing Together Real-life Scenes for Multimodal Multi-image Reasoning. Submitted to **ICLR 2026**.
- 4. Chenlong Zhang, Zhuoran Jin, Hongbang Yuan, Jiaheng Wei, Tong Zhou, Kang Liu, Jun Zhao and Yubo Chen. RULE: Reinforcement Unlearning Achieves Forget-retain Pareto Optimality. Accepted to NeurIPS 2025.
- 5. **Chenlong Zhang**, Tong Zhou, Pengfei Cao, Zhuoran Jin, Yubo Chen, Kang Liu and Jun Zhao. DTELS: Towards Dynamic Granularity of Timeline Summarization. Accepted to **NAACL 2025 Main**.
- 6. Chenlong Zhang, Pengfei Cao, Yubo Chen, Kang Liu, Zhiqiang Zhang, Mengshu Sun and Jun Zhao. Continual Few-shot Event Detection via Hierarchical Augmentation Networks. Accepted to COLING 2024 Main.

#### The Interplay of Pre-Training and Post-Training

Jun. 2025 - Nov. 2025

Work done with Prof. Xiang Yue and Graham Neubig at CMU.

This project establishes a controlled framework to study how reinforcement learning (RL) interacts with pre-training and mid-training in shaping the reasoning abilities of language models. Using synthetic mathematical tasks with explicit reasoning atoms and dependency graphs, it disentangles causal effects between pre-, mid-, and post-training. The results show that generalization depends on the synergy between data distributions, that RL extends reasoning only after core primitives are learned, and that a mid-training bridge greatly improves performance under fixed compute.

#### HONORS AND AWARDS 雫

China National Scholarship (Top 0.2% nationwide), Ministry of Education	Dec. 2025
Merit Student, University of Chinese Academy of Sciences	May 2024
Outstanding Graduate, Provincial Education Department	Jun. 2023
Excellent Bachelor's Thesis Award, Henan University	Jun. 2023
China National Scholarship (Top 0.2% nationwide), Ministry of Education	Dec. 2022
Excellent Completion, National Undergraduate Innovation Program (Leader)	Apr. 2022
China National Scholarship (Top 0.2% nationwide), Ministry of Education	Dec. 2021
Bluesky Scholarship (Top 0.5%), Henan University	Jan. 2021
China National Scholarship (Top 0.2% nationwide), Ministry of Education	Dec. 2020

I actively serve in the NLP community as a shared task organizer and reviewer.

- Task Organizer, SemEval 2026: Abductive Event Reasoning: Towards Real-World Event Causal Inference for Large Language LLMs
- Task Organizer, CCKS 2025: Event Timeline Generation for Social Media
- Conference Reviewer: NLPCC 2025, ACL