Xinglang Zhang

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Education

Huazhong University of Science and Technology (HUST) Sept 2024 – Jun 2028

B.S. in Cyber Science and Engineering

- **GPA:** 4.79/5.0 **Weighted Avg:** 94.51 **Rank:** 1/108
- **Selected Coursework:** Calculus A (I/II) (A+), Linear Algebra (A+), Discrete Mathematics (I/II) (A+), Data Structures (A+), Assembly Language (A+), Probability Theory (A+), Physics A (A+), Database Systems (A+).
- **Research Interests:** LLM Reasoning, Logical Reasoning, Neural-Symbolic AI, AI Safety

Publications

Logical Phase Transitions: Understanding Collapse in LLM Logical Reasoning
Xinglang Zhang*, Yunyao Zhang*, et al.* | **ACL 2026 (Main Conference)** | [ArXiv] | [Code]

Semantic-Aware Logical Reasoning via a Semiotic Framework
Yunyao Zhang, ***Xinglang Zhang****, et al.* | **ACL 2026 (Oral)** | [ArXiv] | [Code]

IntervenSim: Intervention-Aware Social Network Simulation for Opinion Dynamics
Yunyao Zhang, Zuocheng Ying, ***Xinglang Zhang*** | [ArXiv] | [Code]

Too Good to Be Real: Synthetic Preference Misreads What Real Humans Reward
Xinglang Zhang*, Yuanmeng Xiang, et al.*

Research Experience

Diagnosing and Correcting Synthetic-Real Preference Misalignment in Online Argumentation Jan 2026 – Present

Project Leader, Intelligent Media Computing and Network Security Lab, HUST
Advisor: Zikai Song, Research Areas: Preference Alignment, Social Media Analysis, Controllable Text Generation

- **Framework:** Proposed *Ontological Preference Measurement* to diagnose synthetic-real preference mismatch across logic, affect, and expression dimensions.
- **Method:** Developed *OMRA* to mask and reconstruct reasoning scaffolds while preserving stance and coherence.
- **Results:** Reduced marginal, geometric, and transfer gaps by 54.4% on average across four LLM families; preparing a first-author **EMNLP 2026** submission.

Exploring Logical Reasoning Boundaries and Enhancement Strategies in LLMs via Neural-Symbolic Methods Aug 2025 – Jan 2026

Project Leader, Intelligent Media Computing and Network Security Lab, HUST
Advisor: Zikai Song, Research Areas: LLM Evaluation, Logical Reasoning, Neural-Symbolic AI

- **Framework:** Identified *Logical Phase Transitions* in LLM reasoning and proposed a *Neural-Symbolic Tuning* framework to stabilize reasoning under increasing logical complexity.
- **Results:** Across five benchmarks, the method mitigates reasoning collapse, yielding +1.26 (naive) and +3.95 (CoT) average accuracy gains with improved generalization.
- **Outcome:** Published as first author in **ACL 2026 Main Conference**.

Reasoning Framework for Large LLMs based on Philosophical Paradigms Feb 2025 – Aug 2025

Research Assistant, Intelligent Media Computing and Network Security Lab, HUST
Advisor: Zikai Song, Research Areas: LLM Reasoning, Neural-Symbolic AI, Semantic and Symbolic Reasoning

- **Framework & Benchmark:** Proposed *LogicAgent*, a semiotic-aware logical reasoning framework, and introduced *RepublicQA*, a benchmark jointly modeling logical and semantic complexity.
- **Results:** Achieved state-of-the-art results on RepublicQA (+**6.25%**) and strong generalization across four logical reasoning benchmarks (+**7.05%**).
- **Outcome:** Co-authored paper published in **ACL 2026 Main Conference**.

Safety-Aligned Embodied AI: A Comprehensive Survey & Analysis Aug 2025 – Oct 2025

Research Assistant, AIM3 Lab, Renmin University of China (RUC)
Advisor: Wenxuan Wang, Research Areas: Embodied AI, AI Safety

- **Framework:** Reviewed safety-aligned Embodied AI research, organizing representative methods across perception, planning, and action.
- **Progress:** Analyzed over 30 papers to summarize common experimental settings, evaluation protocols, and safety considerations.
- **Outcome:** Contributed to literature synthesis and early-stage structuring of an in-progress survey project.

Honors

- **Outstanding Undergraduate Student**, Qiming College (Top 1.85%) 2025 – 2027
- **Jin Yugang Lan-Ying Scholarship** (Top 1%) 2025 – 2026
- **National Scholarship** (Top 3.2%) 2024 – 2025
- **Triple-A ("Sanhao") Student Scholarship** (Top 5.5%) 2024 – 2025
- **Outstanding Communist Youth League Member** (Top 4.1%) 2024 – 2025
- **Outstanding Communist Youth League Cadre** (Top 4.1%) 2024 – 2025
- **Academic Excellence Scholarship** & **Self-improvement Scholarship** (Top 10%) 2024 – 2025

Leadership Experience

- **Class Representative, Qiming Experimental Class 2401** Sept 2024 – Present
  - Organized academic events, managed administrative tasks, and mentored students to enhance class cohesion.
- **Head of Organization Department, School of Cyber Science and Engineering** Sept 2025 – Present
  - Managed administrative and organizational affairs for the Communist Youth League.
- **Head of Lesson Planning, Peer Lecturer Group** Apr 2025 – Present
  - Fostered academic excellence across the college through peer mentoring and curriculum planning.

Skills

ML & Research Stack: Python, C/C++, PyTorch, HuggingFace, LoRA, SFT, RLHF, vLLM

Mathematical Foundations: Linear Algebra, Probability Theory, Calculus, Discrete Mathematics

Languages: English (TOEFL 5.5/6; W6 R6 L5.5 S5; CET-4: 609; CET-6: 611), Chinese (Native)