Peidong **Wang**

Learner and researcher · Artificial Intelligence

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Summary

Undergraduate in the Data Mining group at Northeastern University, supervised by Associate Prof. Shi Feng, admitted to a direct Ph.D. program starting this fall. Primary research interests encompass Large Language Models (LLMs), Multi-modal Large Language Models (MLLMs), Reinforcement Learning, and Empathic Dialogue Systems. Current academic work focuses on advancing Reasoning LLMs, Multi-modal Large Language Models, and Self-Evolving LLMs. First author of one paper accepted and three papers currently under review at CCF-A conferences, plus a second-author paper accepted at a CCF-B conference. Won four national-level awards in high-level competitions.

Publications

STICKERCONV: Generating Multimodal Empathetic Responses from Scratch (Received by ACL 2024) — *Co-first Author*

Contribution: *May. 2024*

- Introduced Agent4SC, a multi-agent framework that creates STICKERCONV, a multimodal empathetic dialogue dataset.
- Designed PEGS, a framework generating empathetic text and sticker responses based on emotional and contextual dynamics.
- Proposed a method for evaluating multimodal empathetic responses, leveraging LLMs to assess empathy, consistency, and ranking quality.

SAFE-QAQ: End-to-End Slow-Thinking Audio-Text Fraud Detection via Reinforcement Learning (Submitted to ACM MM 2025) — *First Author*

Contribution: *Apr. 2025*

- Proposed SAFE-QAQ, the first end-to-end fraud detection framework combining slow-thinking reasoning.
- Introduced an optimization process, reducing reasoning lengths by 48.87% without performance loss.
- Developed a real-time detection system enabling 81.4% faster detection (8.98s vs. 48.31s) while maintaining high accuracy.

TeleAntiFraud-28k: An Audio-Text Slow-Thinking Dataset for Telecom Fraud Detection (Submitted to ACM MM 2025) — *Co-first Author*

Contribution: *Apr. 2025*

- Proposed TeleAntiFraud-28k, the first multi-task slow-thinking audio-language dataset for telecommunication fraud prevention.
- Designed a pipeline using real-call ASR, LLM simulation, and multi-agent generation to maximize fraud coverage.
- Established TeleAntiFraud-Bench, a benchmark for evaluating telecom fraud models with slow-thinking assessments.

Language Models as Continuous Self-Evolving Data Engineers (Submitted to ACL 2025) — *First Author*

Contribution: *Feb. 2025*

- Proposed LANCE, a novel paradigm enabling LLMs to autonomously generate, clean, review, and annotate data for training themselves.
- LANCE automates post-training data construction, improving efficiency, quality, and model performance across tasks by iterative self-training.
- LANCE enhances mathematical reasoning, improving both basic and advanced tasks with general-purpose data.

TIGER: A Unified Generative Model Framework for Multimodal Dialogue Response Generation (Received by LREC-COLING 2024) — *Second Author*

Contribution: *Feb. 2024*

- Proposed TIGER, a unified generative framework for multimodal dialogue response generation with text and images.
- Achieved state-of-the-art results on automatic and human evaluations, validating TIGER's effectiveness in multimodal conversations.

Education

Northeastern University — *Shenyang, China*

B.S. in Artificial Intelligence — *Sep. 2021 - Jun. 2025*

- Awarded second and third prizes for academic scholarships, as well as the Future Technical Academy Scholarship.
- Honored as an Outstanding Individual for Academic Excellence.

Awards

Dec. 2024	**National-level,** Judicial Subjective Exam Track of the China AI and Law Evaluation (CAIL 2024)	*Second Prize*
Aug. 2023	**National-level,** China College Student Computer Game Competition	*First Prize*
Jul. 2022	**National-level,** ROBOCON 2022 "Create brilliant together"	*First Prize (Runner-up)*
Jul. 2022	**National-level,** ROBOCON 2022 "Machine equestrian competition"	*Third Prize*