Qingni Wang

Institution: University of Electronic Science and Technology of China (UESTC)
Status: Master Degree Candidate
Email: qingni1031@gmail.com

EDUCATION

China University of Mining and Technology (CUMT) Sep 2019 — Jun 2023
Bachelor's degree in Electronic Information Science and Technology Cumulative GPA: 3.86/5.00 (Rank 5/106)

University of Electronic Science and Technology of China (UESTC) Sep 2023 — Present
Master's degree in Computer Science and Technology Cumulative GPA: 3.54/4.00

RESEARCH

- Uncertainty Quantification:(1) Conformal Prediction (2) Conformal Risk Control.
- Hallucination in Question Answering (QA) Tasks of Multimodal Large Language Models (MLLMs).

PUBLICATIONS

Published Papers:

1. **Qingni Wang**, Tiantian Geng, Zhiyuan Wang, Teng Wang, Bo Fu*, Feng Zheng*. Sample then Identify: A General Framework for Risk Control and Assessment in Multimodal Large Language Models. International Conference on Learning Representations (**ICLR**), **Spotlights**, 2025.
2. Tiantian Geng, Jinrui Zhang, **Qingni Wang**, Teng Wang, Jinming Duan*, Feng Zheng*. LongVALE: Vision-Audio-Language-Event Benchmark Towards Time-Aware Omni-Modal Perception of Long Videos. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2025.
3. Zhiyuan Wang, Jinhao Duan, Lu Cheng, Yue Zhang, **Qingni Wang**, Xiaoshuang Shi*, Kaidi Xu, Hengtao Shen, Xiaofeng Zhu. ConU: Conformal Uncertainty in Large Language Models with Correctness Coverage Guarantees. Conference on Empirical Methods in Natural Language Processing (**EMNLP**), Findings, 2024.

RESEARCH EXPERIENCE

A General Framework for Risk Control and Assessment in Multimodal Large Language Models.

- We propose *TRON*, a two-step framework for risk management in VideoQA tasks of MLLMs, which consists of: (1) Sampling Step: We develop a conformal score for each calibration data to sample generations that ensures the inclusion of acceptable responses, and then determine the sampling size of each test sample based on a user-specified risk level. (2) Identification Step: We define the non-conformity score based on self-consistency theory, which identifies high-quality responses within the candidate set. Through two-stage calibration, we derive the minimum sampling size in open-domain QA tasks and achieve rigorous guarantees of marginal coverage.

LongVALE: Vision-Audio-Language-Event Benchmark.

- In this work, I conducted a comprehensive comparison of the performance of various existing MLLMs on the LongVALE benchmark dataset, evaluating multiple models across different metrics and providing insights into their strengths and weaknesses in handling multi-modal tasks.

HONORS AND AWARDS

- The First Prize Scholarship 2020, 2021
- Outstanding Student Scholarship 2023, 2024
- Academic Seedling Award 2025