Yikun Wang

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Education

Fudan University & Shanghai Innovation Institude (SII) — Shanghai, China
Ph.D. Candidate in Artificial Intelligence; — *Aug 2024 – Present*
I am Interested in Large Reasoning Model and Multimodal Reasoning, exploring insights into frontier advancements within the domain and their applications into different scenarios.

Fudan University — Shanghai, China
B.Sc. in Computer Science; — *Sept 2019 – Jun 2024*
Reclared major from Electronic Science and Engineering (ESE) to Computer Science (CS); — *April 2021*

Selected Publications

VisuoThink: Empowering LVLM Reasoning with Multimodal Tree Search
[ACL 2025 Main] ***Yikun Wang****, Siyin Wang*, Qinyuan Cheng, Zhaoye Fei, Liang Ding, Qipeng Guo, Dacheng Tao, Xipeng Qiu*

RRescue: Ranking LLM Responses to Enhance Reasoning Over Context
[ACL 2024 SRW] ***Yikun Wang****, Rui Zheng, Haoming Li, Qi Zhang, Tao Gui, Fei Liu*

Uncertainty Aware Learning for Language Model Alignment
[ACL 2024 Main] ***Yikun Wang****, Rui Zheng*, Liang Ding, Qi Zhang, Dahua Lin, Dacheng Tao*

GeometryZero: Improving Geometry Solving for LLM with Group Contrastive Policy Optimization
[Arxiv Preprint] ***Yikun Wang****, Yibin Wang, Dianyi Wang, Zimian peng, Qipeng Guo, Dacheng Tao, Jiaqi Wang*

LLM-DA: Data Augmentation via Large Language Models for Few-Shot Named Entity Recognition
[ArXiv preprint] Junjie Ye, Nuo Xu, ***Yikun Wang****, Jie Zhou, Qi Zhang, Tao Gui, Bingning Wang, Xuanjing Huang*

Research Experience

Shanghai Collaborative Innovation Center on Intelligent Visual Computing — Shanghai, China
Undergraduate Research Assistant — *Jun 2021 – Mar 2022*

- Engaged in advanced research within the Trustworthy Artificial Intelligence group, working on novel transferable attacks against convolution-based neural networks under Dr. Wei Zhipeng and Assoc. Prof. Chen Jingjing's mentorship.
- Devised and proposed an innovative generative method targeting the perturbation of intermediate network layers; conducted a series of rigorous experiments to establish the method's efficacy in compromising neural network integrity.

Natural Language Processing Laboratory, Fudan University — Shanghai, China
Undergraduate Research Assistant — *Sept 2022 – Jun 2023*

- Conducted empirical studies into the phenomena of memorization and robust overfitting within adversarially trained neural networks, focusing particularly on the influence of dataset characteristics, under the supervision of Dr. Zheng Rui.
- Innovated a data augmentation methodology that leverages the textual rewriting capabilities of Large Language Models (LLMs), augmenting selected examples through strategic entity substitution and context rewriting tailored by prompt engineering.

Emory University — Atlanta, GA, USA
Remote Research Assistant — *Jun 2023 – Oct 2023*

- Collaborated on a cutting-edge initiative to refine Large Language Model (LLM) optimization via ranking metrics, focusing on contextually-grounded candidate responses and promoting a robust partial ordering approach under Dr. Fei Liu's guidance.

- Participated in the creation of a comprehensive multi-document question answering dataset, with the goal of testing and enhancing the proposed system's contextual comprehension; prepared research findings for submission to the prestigious ICLR 2024 conference.

Computational Evolutionary Intelligence Lab, Duke University Durham, NC, USA
Summer Research Assistant *Jul 2023 – Sept 2023*

- Explored the vulnerability of diffusion models, particularly focusing on the stability of latent signatures within these models, in collaboration with Jingyang Zhang, under the mentorship of Dr. Yiran Chen.
- Developed a robust watermarking system aimed at fortifying the protection of digital intellectual properties and enabling the reliable identification of AI-generated content sources within the burgeoning field of AI-generated content (AIGC).

Awards & Achievements

2020, 2022 Fudan Outstanding Student Scholarship Prize

2023 Fudan Outstanding Student Scholarship First Prize (Xiaomi Scholarship) ($\approx$ top 5%)

2024 Xiaomi Scholarship ($\approx$ top 5%)

Skills

Languages: Chinese (Native), English (Professional), Korean (Amateur)