YIFAN ZENG PhD Student

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https://xhmy.github.io/

EDUCATION

Oregon State University Corvallis, United States
Ph.D. in Computer Science 2023 - 2029 *(expected)*

- Advisor: Prof. Huazheng Wang
- Research Area: Robust LLMs Reasoning and Decision Making & Agentic AI

Zhuhai College of Jilin University Zhuhai, China
B.E. in Data Science 2019 - 2023

- GPA: 3.84/4.00, Rank: 1/249
- First-tier Academic Performance Scholarship for 3 consecutive years
- Outstanding Graduate Award, 2023
- Thesis: Semi-Supervised Deep Learning on Computer Vision Tasks

PUBLICATIONS

1. Yaoyao Qian, **Yifan Zeng**, Yuchao Jiang, Chelsi Jain, Huazheng Wang. **The Ranking Blind Spot: Decision Hijacking in LLM-based Text Ranking** , *arXiv preprint arXiv:2509.18575*, 2025. (EMNLP 2025)

2. Chelsi Jain, Yiran Wu, **Yifan Zeng**, Jiale Liu, S hengyu Dai, Zhenwen Shao, Qingyun Wu, Huazheng Wang. **SimpleDoc: Multi-Modal Document Understanding with Dual-Cue Page Retrieval and Iterative Refinement** , *arXiv preprint arXiv:2506.14035*, 2025. (EMNLP 2025)

3. Jiale Liu, **Yifan Zeng**, Yifan Zeng, Shaokun Zhang, Chi Zhang, Malte Højmark-Bertelsen, Marie Normann Gadeberg, Huazheng Wang, Qingyun Wu. **Divide, Optimize, Merge: Fine-Grained LLM Agent Optimization at Scale** , *arXiv preprint arXiv:2505.03973*, 2025. (EMNLP 2025)

4. Jiahao Qiu, Yifu Lu, **Yifan Zeng**, Jiacheng Guo, Jiayi Geng, Huazheng Wang, Kaixuan Huang, Yue Wu, Mengdi Wang. **TreeBoN: Enhancing Inference-Time Alignment with Speculative Tree-Search and Best-of-N Sampling** , *arXiv preprint arXiv:2410.16033*, 2024. (EMNLP 2025)

5. Hui Yuan, **Yifan Zeng**, Yue Wu, Huazheng Wang, Mengdi Wang, Liu Leqi. **A Common Pitfall of Margin-based Language Model Alignment: Gradient Entanglement** , *arXiv preprint arXiv:2410.13828*, 2024. (ICLR 2025)

6. **Yifan Zeng**, Ojas Tendolkar, Raymond Baartmans, Qingyun Wu, Lizhong Chen, Huazheng Wang. **LLM-RankFusion: Mitigating Intrinsic Inconsistency in LLM-based Ranking** , *arXiv preprint arXiv:2406.00231*, 2024. (NeurIPS 2024 Workshop SFLLM)

7. **Yifan Zeng**, Yiran Wu, Xiao Zhang, Huazheng Wang, Qingyun Wu. **AutoDefense: Multi-Agent LLM Defense against Jailbreak Attacks** , *arXiv preprint arXiv:2403.04783*, 2024. (NeurIPS 2024 Workshop SafeGenAi)

8. Jianqi Yan, Junjie Luo, **Yifan Zeng**, Alex P Leung, Jie Feng, Hong-Hao Zhang, Weipeng Lin. **Modeling the Time Evolution of Compact Binary Systems with Machine Learning** , *The Astrophysical Journal 973 (2), 163*, 2024.

9. Jianqi Yan, **Yifan Zeng**, Junhong Lin, Jinrui Fan, Chuanyu Fang, Yong Cai. **Enhanced Object Detection in Pediatric Bronchoscopy Images using YOLO-based Algorithms with CBAM Attention Mechanism** , *Heliyon 10 (12)*, 2024.

10. Wei Lv, Tao Chen, **Yifan Zeng**, Weihong Liu, Chuying Huang. **A challenge of deep-learning-based object detection for hair follicle dataset** , *Journal of Cosmetic Dermatology 22 (9), 2565-2578*, 2023.

11. **Yifan Zeng**, Aohui Pang, Wei Lv, Xiaolin Zhu. **Task-Level Consistency Semi-Supervised Based Domain Adaptation for Lung Nodules Segmentation** , *Computer and Information Science, 181-196*, 2022.

PROJECTS	**Importance Sampling Optimization Improves Online Preference Learning**	
	Yifan Zeng, Haoyu Zhao, Huazheng Wang	Under Review at ICLR 2026
	Railway Defect Detection via Self-Supervised Learning on Ultrasound Data	
	Quanbao Network Technology Co., Ltd.	2022.09 - 2023.12
	Context-Aware Video Object Detection on Medical Tasks	
	Quanbao Network Technology Co., Ltd.	2022.03 - 2023.12

EXPERIENCE	**Research Assistant**	Oregon State University	2025.09 - Now

AI Agent Research Intern | AG2AI — 2025.06 - 2025.09

- Developing agentic AI systems that can process, analyze, and interact with various environments.

Teaching Assistant | Oregon State University — 2024.09 - 2025.06

- CS 550 - Introduction to Computer Graphics
- CS 512 - Data Science Tools and Programming
- CS 546 - Networks in Computational Biology
- CS 312 - System Administration

Research Assistant | Oregon State University — 2024.03 - 2024.09

Research Scientist | Quanbao Network Technology Co. Ltd. — 2022.04 - 2023.08

- Developed novel semi-supervised learning algorithms and architectures to tackle complex domain-specific visual recognition tasks with limited labeled data
- Led research collaborations with medical institutions and railway corporation, delivering SOTA solutions for medical imaging analysis and industrial defect detection

SWE Intern | Zhuhai Xiangyi Aviation Technology Co. Ltd. — 2021.10 - 2022.01

- Designed data analysis and visualization solutions for pilot training
- Led the development of a pilot training tracking platform

SERVICE

- **Reviewer** WWW 2025, AAAI 2025, EMNLP 2025

SKILLS

Expertise:

- Distributed Online RL Training for LLM Agents (e.g., GRPO with Verl)
- Building LLM Agents: LLM for Information Retrieval, Information Seeking Agent
- RLHF Pipeline: SFT, Reward Model Training, Preference Optimization (with TRL)
- Self-Supervised Representation Learning, Object Detection for Vision Tasks

Last updated: October 7, 2025