

## EDUCATION

### Oregon State University

*Ph.D. in Computer Science*

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

Corvallis, United States

2023 - 2029 (*expected*)

### Zhuhai College of Jilin University

*B.E. in Data Science*

- 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

Zhuhai, China

2019 - 2023

## PUBLICATIONS

1. Chelsi Jain, Yiran Wu, **Yifan Zeng**, Jiale Liu, Shengyu 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.
2. 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.
3. 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.
4. 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](#))
5. **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](#))
6. **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](#))
7. 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.
8. 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.
9. 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.
10. **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

### 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	<b>AI Agent Research Intern</b>   AG2AI	2025.06 - 2025.09
	<ul style="list-style-type: none"> <li>Developing agentic AI systems that can process, analyze, and interact with various environments.</li> </ul>	
	<b>Teaching Assistant</b>   Oregon State University	2024.09 - 2025.06
	<ul style="list-style-type: none"> <li>CS 550 - Introduction to Computer Graphics</li> <li>CS 512 - Data Science Tools and Programming</li> <li>CS 546 - Networks in Computational Biology</li> <li>CS 312 - System Administration</li> </ul>	
	<b>Research Assistant</b>   Oregon State University	2024.03 - 2024.09
	<b>Research Scientist</b>   Quanbao Network Technology Co. Ltd.	2022.04 - 2023.08
	<ul style="list-style-type: none"> <li>Developed novel semi-supervised learning algorithms and architectures to tackle complex domain-specific visual recognition tasks with limited labeled data</li> <li>Led research collaborations with medical institutions and railway corporation, delivering SOTA solutions for medical imaging analysis and industrial defect detection</li> </ul>	
	<b>SWE Intern</b>   Zhuhai Xiangyi Aviation Technology Co. Ltd.	2021.10 - 2022.01
	<ul style="list-style-type: none"> <li>Designed data analysis and visualization solutions for pilot training</li> <li>Led the development of a pilot training tracking platform</li> </ul>	
SERVICE	<ul style="list-style-type: none"> <li><b>Reviewer</b> WWW 2025, AAAI 2025</li> </ul>	
SKILLS	<b>Expertise:</b> <ul style="list-style-type: none"> <li>Building LLM Agents, LLM Training &amp; RLHF, LLM for Information Retrieval</li> <li>Self-Supervised Representation Learning, Object Detection, Segmentation</li> </ul>	