

# Yi Yu (Eve), Ph. D.

👤 Current Position: Young Researcher @ Shanghai Artificial Intelligence Laboratory

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## SUMMARY

Experienced researcher focusing on **responsible AI**, including **MLLM Safety Alignment**, **AI security**, and **AI-generated Content Detection**. Proven track record of publications (25+) developing innovative AI security solutions with an intersection of **smart cities**. Demonstrated excellence through **interdisciplinary collaborations** and high-quality publications in top-tier AI conferences and journals.

## RESEARCH INTERESTS

**AI Security and Safety Alignment, Trustworthiness of LLMs/MLLMs, AI-generated Content Detection, Watermarking for AI Models, Deepfake Detection, Multi-Agent Systems and Evaluation, Smart Cities**

## EDUCATION

2017-2022	<b>Zhejiang University</b>	Doctor of Philosophy	Transp. Eng.	Advisor: Prof. Dianhai Wang
2020-2022	<b>Imperial College London</b>	Visiting Scholar		Advisor: Prof. Washington Ochieng, FREng
2013-2017	<b>Zhejiang University</b>	Bachelor of Science	Major in Civil Engineering	GPA 3.72/4.0
			Minor in Law	GPA 3.78/4.0

\*Zhejiang University is ranked 51 in US News Ranking, and ranked 44 in QS Rankings

## WORK AND INTERNSHIP EXPERIENCE

2022.07-Present	<b>Shanghai AI Lab</b>	AI Safety Center	<b>Assistant Researcher</b>
<ul style="list-style-type: none"><li>Led research on AI security and trustworthiness, drafting AI responsible scaling policies, developing novel LLM post-training alignment methods against multi-turn jailbreaks, balancing security and usability.</li><li>Developed advanced frameworks for AI-generated content detection, establishing real-world benchmarks (e.g., EvoBench).</li><li>Design and implement multi-agent simulation platforms to evaluate the safety and trustworthiness of MLLMs</li><li>Managed multidisciplinary teams and facilitated developing an LLM-based traffic data trading platform.</li></ul>			
2020.06-2020.10	<b>Didi Chuxing Tech Co.</b>	Safety Product Department	<b>Algorithm Intern</b>
<ul style="list-style-type: none"><li>Developed machine learning algorithms for anomaly detection and risk assessment in ride-sharing systems.</li><li>Proposed anti-cheating algorithms and secured four national patents.</li></ul>			

## SELECTED PUBLICATIONS AND PRESENTATIONS

### Conference Proceedings

- Boxuan Zhang\*, **Yi Yu\***, et al., Dive into the Agent Matrix: A Realistic Evaluation of Self-Replication Risk in LLM Agents, *AAAI 2025*(submitted). [AI Security, LLM Agent]
- Xiao Yu\*, **Yi Yu\***, et al., EvoBench: Towards Real-world LLM-Generated Text Detection Benchmarking, *ACL 2025*. [AI Security, Deepfake Detection]
- Xiaoya Lu, et al., **Yi Yu**, X-Boundary: Establishing Exact Safety Boundary to Shield LLMs from Multi-Turn Jailbreaks without Compromising Usability, *EMNLP 2025*. [AI Safety Alignment]
- Yi Yu**, et al., Data on the Move: Traffic-Oriented Data Trading Platform Powered by AI Agent with Common Sense, *IEEE IV 2024*. [Multi-agent, LLM, Smart Cities]
- Yi Yu**, et al., SWDPM: A Social Welfare-Optimized Data Pricing Mechanism, *IEEE SMC 2023*.
- Yi Yu**, et al., Pursuing Equilibrium of Medical Resources via Data Empowerment in Parallel Healthcare System, *IEEE SMC 2023*. [Optimization, Operations Research]

### Journal Articles

- Wang Xuhong, Haoyu Jiang, **Yi Yu**, et al., Building Intelligence Identification System via Large Language Model Watermarking: A Survey and Beyond, *Artificial Intelligence Review*, 2025. [LLM Watermarking]

2. **Yi Yu**, et al. Identifying traffic clusters in urban networks based on graph theory using license plate recognition data. *Physica A: Statistical Mechanics and its Applications*, 2022. [Machine Learning, Smart Cities]
3. **Yi Yu**, et al., Navigating the Data Trading Crossroads: Interdisciplinary Survey, *IEEE TSMC*(submitted).
4. Jiaqi Zeng, **Yi Yu**, et al., Trajectory-as-a-Sequence: A novel travel mode identification framework. *Transportation Research Part C: Emerging Technologies*, 2023. [Deep Learning, Smart Cities]
5. HongSheng Qi, **Yi Yu**, et al., Intersection traffic deadlock formation and its probability: A petri net-based modeling approach. *IET Intelligent Transport Systems*, 2022. [Modelling, Smart Cities]
6. Yanlei Cui, **Yi Yu**, et al., Optimizing Road Network Density Considering Automobile Traffic Efficiency: Theoretical Approach. *Journal of Urban Planning and Development*, 2022. [Smart Cities]

#### *Presentations and Conferences*

- **Oral presentation**: “Data on the Move: Transportation-Oriented Data Trading Platform Powered by AI Agent with Common Sense” at 2024 IEEE Intelligent Vehicles Symposium, June 2024, Jeju Island, South Korea
- **Oral presentation**: “SWDPM: A Social Welfare-Optimized Data Pricing Mechanism” at 2023 IEEE International Conference on Systems, Man, and Cybernetics, October 2023, Hawaii, USA.
- **Invited talk**: “Urban Traffic State Monitoring Based on Automatic Number Plate Recognition Data” at 2022 China-UK Technology Summit, December 2022, London, UK.

## RESEARCH PROJECTS

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**AI Generated Contents Detection** (National Key R&D Program of China)

**Data Economy Research in Smart City** (National Key R&D Program of China)

**Automatic AI Safety Evaluation System Research** (National Key R&D Program of China)

**City Brain-ITS: Developing Intelligent Transportation System for Hangzhou** (Local Cooperation Project)

**Urban traffic intrinsic acquisition and demand structure optimization control based on big data** (National Natural Science Foundation of China)

**Multi-source Heterogeneous Big Data for Urban Traffic** (National Natural Science Foundation of China)

**Urban Traffic Structure Control Based on System Dynamics** (National Natural Science Foundation of China)

## SKILLS

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**Programming**: Python, Shell Scripts, SQL, MATLAB, HTML

**Frameworks**: PyTorch, TensorFlow, OpenRLHF, VERL, scikit-learn

**Expertise**: AI Security, AI Safety Alignment, AI-generated Content Detection, Watermarking, Multi-Agent Systems, Large-scale Model Training, MLLM post-training

**Software**: SUMO, VISSIM, TransCAD, ArcGIS, AutoCAD, LaTeX

**Languages**: Mandarin (Native), English (Full Professional, TOEFL 103)

## ACHIEVEMENTS AND AWARDS

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- Published over 25 papers (conference and journal) in high-impact venues covering AI Security, Trustworthy AI, Data-driven Optimization, and Smart City Applications.
- Published/submitted research papers to top-tier conferences including ACL, ICML, and IEEE series.
- Led multiple AI safety projects funded by National Key R&D Programs
- Invited Speaker at international conferences including China-UK Technology Summit, London, 2022.
- Excellent Graduate Student Award, Zhejiang University

## ACADEMIC SERVICES

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**Journal Reviewer**: IEEE TIV, IEEE TSMC, Applied Sciences, Sustainability

**Conference Reviewer**: ICML, ICLR, ARR, TRB Annual Meeting, IEEE ITSC, IEEE SMC