

Yucheng Pan

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Education

Ph.D. in Computer Science

University of Maryland, College Park

GPA: 3.925/4.000 | Advisors: Kaiqing Zhang and Yaodong Yu

Aug. 2025 – Expected May 2030

College Park, MD

B.Sc. in Mathematics and Physics

Tsinghua University

GPA: 3.87/4.00

Sep. 2021 – Jul. 2025

Beijing, China

Research Interests

Large Language Models (LLMs), AI Agents

Research Experience

Graduate Research Assistant

University of Maryland, College Park

Aug. 2025 – Aug. 2026

College Park, MD

Beyond End-to-End Recovery: Towards a Better Understanding of LLM Steganography via Rolewise Decomposition

- Led the development of a rolewise evaluation framework that separately measures encoder execution, decoder recovery, and passive-monitor detectability.
- Designed and validated controlled experiments spanning six large language models (LLMs) and eight encoding schemes; built rule-based audits to attribute outcomes to encoder, decoder, or monitor behavior.
- Showed that aggregate end-to-end recovery can mask encoding errors and decoder-specific effects, revealing distinct role-specific strengths and failure modes; led the analysis, figure development, and writing of a first-author manuscript.

Remote Research Intern

Princeton University

Mentors: Mengdi Wang (Princeton) and Huazheng Wang (Oregon State)

May 2024 – Jul. 2025

Remote

Deception and constraints in multi-agent systems

- Designed multi-agent experiments about deception in public goods game and constraint mechanisms based on social norms and payoff allocations; analyzed their effects on deceptive LLM-agent behavior.

Data augmentation for LLM-agent generalization

- Explored redesigning agent environments as data augmentation to improve generalization through method development and preliminary experiments.

Manuscript in Preparation

Om Tailor, **Yucheng Pan**, Solaleh Mohammadi, Xinyan Liu, and Kaiqing Zhang.

“Beyond End-to-End Recovery: Towards a Better Understanding of LLM Steganography via Rolewise Decomposition”

Technical Skills

Programming: Python, C/C++, R

Machine Learning and LLMs: PyTorch, Hugging Face Transformers, vLLM

Systems and Research Tools: Linux, Slurm, Git, $\text{\LaTeX}$

Fellowships and Honors

Dean’s Fellowship, University of Maryland

Academic Excellence Scholarship, Tsinghua University

Progress in Academic Performance Scholarship, Tsinghua University

Outstanding Innovation Scholarship, Philip K. H. Wong Foundation

2025–2026

2024

2022

2022