# Yang Zhou

**Ph.D. Student, Rutgers University – Department of Computer Science**

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Personal Website | LinkedIn | Google Scholar | GitHub | Hugging Face

## BIOGRAPHY

I am a Ph.D. student in the Department of Computer Science at Rutgers University, supervised by Prof. Dimitris N. Metaxas. Before that, I obtained my M.S. degree in Control Science and Engineering from the University of Science and Technology of China.

My current research interests include Multimodal Large Language Models (MLLMs), Large Language Models (LLMs), Multi-Agent Systems, and Test-Time Scaling. I am currently collaborating with CAMEL-AI to extend agent capabilities by integrating reinforcement learning with diverse benchmarks on top of its multi-agent framework.

## EDUCATION

**Rutgers University**                                September 2023 – Present
Ph.D. in Computer Science
Specialization: Large Language Models, Computer Vision

**University of Science and Technology of China**         September 2020 – June 2023
Master of Engineering, Control Science and Engineering
Specialization: Computer Vision, Object Detection, CNN Architecture

**Southwest University**                                September 2016 – June 2020
Bachelor of Engineering, Automation
Specialization: Signals & Systems

## PUBLICATIONS

### MLLM, LLM, MCP & Multi-Agent

- **M3-Bench: Multi-Modal, Multi-Hop, Multi-Threaded Tool-Using MLLM Agent Benchmark**
  **Yang Zhou**, Mingyu Zhao, Zhenting Wang, Difei Gu, Bangwei Guo, Ruosong Ye, Ligong Han, Can Jin, Dimitris N. Metaxas.
  *arXiv*, Submitted on 21 Nov 2025.

- **LED: LLM Enhanced Open-Vocabulary Object Detection without Human Curated Data Generation**
  **Yang Zhou**, Shiyu Zhao, Yuxiao Chen, Zhengting Wang, Dimitris N. Metaxas.
  *arXiv*, OpenReview Submitted.

- **Your Reward Function for RL is Your Best PRM for Search: Unifying RL and Search-Based TTS**
  Can Jin, **Yang Zhou**, Qixin Zhang, Hongwu Peng, Di Zhang, Marco Pavone, Ligong Han, Zhang-Wei Hong, Tong Che, Dimitris N. Metaxas.
  *arXiv*, OpenReview Submitted.

### Computer Vision

- **A Multimodal Spatio-Temporal GCN Model with Enhancements for Isolated Sign Recognition**
  **Yang Zhou**, Zhaoyang Xia, Yuxiao Chen, Carol Neidle, Dimitris N. Metaxas.
  *LREC-COLING 2024*.

- **A Review of Convolutional Neural Network Architectures and Their Optimizations**
  Shuang Cong, **Yang Zhou**.
  *Artificial Intelligence Review* (IF 9.588/Q1).

- [Diffusion Models for Sign Language Video Anonymization](#)
  Zhaoyang Xia, **Yang Zhou**, Ligong Han, Carol Neidle, Dimitris N. Metaxas.
  *LREC-COLING 2024.*

## Previous Work (Modeling, Data Analysis, Signals & Systems)

- [A Multistory Building Evacuation Model Based on Multiple-Factor Analysis](#)
  **Yang Zhou**, Zichuan Fan.
  *Advances in Civil Engineering* (IF 1.924/Q3).

- [The Excitation and Detection of Lamb Waves in a Droplet-Loaded Plate Using Air-Coupled Ultrasonic Transducers](#)
  Zichuan Fan, **Yang Zhou**, Tanghong Wu.
  *Measurement* (IF 5.131/Q1).

- [Quasi-Dispersion of Air-Coupled Ultrasonic Signal for Angle-Dependent Reception](#)
  Zichuan Fan, **Yang Zhou**, Tianhao Qie.
  *Measurement* (IF 5.131/Q1).

- [Multiphysics Model of Lamb Waves Propagation in a Plate Loaded with Droplets](#)
  **Yang Zhou**, Zichuan Fan.
  *ICCAR 2019, IEEE.*

- [Multiple Reflective Signal Reception in Gas Flow Measurement Using Air-Coupled Leaky Lamb Waves](#)
  Zichuan Fan, Tianhao Qie, **Yang Zhou**.
  *Measurement* (IF 5.131/Q1).

## TEACHING & TALKS

| | |
|---|---|
| **Computer Security** (Teaching Assistant)<br>Rutgers University, New Jersey, USA | Spring 2025 |
| **Systems Programming** (Teaching Assistant)<br>Rutgers University, New Jersey, USA | Fall 2023, Spring 2024 |
| **Neural Networks and Deep Learning** (Teaching Assistant)<br>University of Science and Technology of China, Hefei, China | Aug 2021 |
| **Characteristics of Lamb Waves and Their Leakage Waves** (Presenter)<br>ICCAR International Academic Conference, Beijing, China | May 2019 |

## SKILLS

- **Operating Systems:** Windows, Linux
- **Programming:** Python (primary), C++, Java
- **Tools:** Office Suite, MATLAB

## HONORS & PATENTS

- 2019 Invention Patents (China)
- 2019 Utility Model Patent (China)
- 2019 Mathematical Contest in Modeling (COMAP) – Meritorious Winner