

Yanheng He

Shanghai Jiao Tong University

☎ (+1) 551-344-9632 | ✉ henryhe_sjtu@sjtu.edu.cn | 🏠 henryhe0123.github.io | 📱 [HenryHe0123](#)

Research Interests

I am interested in exploring robust AI systems that can solve real-world problems. Currently, I'm enthusiastic about **Agents**.

Education

Shanghai Jiao Tong University

Shanghai, China

B.S. IN COMPUTER SCIENCE, ACM HONORS CLASS

Sept. 2022 - Present

- **ACM Honors Class** is an elite CS program for top 5% talented students in SJTU.
- GPA: 4.06/4.3, Avg Score: 92.75/100, **Ranking: 1/30** (2nd & 3rd year).

Experience

New York University

New York, USA

RESEARCH INTERN, ADVISED BY PROF. [SAINING XIE](#)

May 2025 - Present

- **Research Topics: Multimodal Agents, RL.**

Shanghai Jiao Tong University

Shanghai, China

RESEARCH INTERN, ADVISED BY PROF. [PENGFEI LIU](#)

Jun. 2024 - Apr. 2025

- **Research Topics: Agents, Reasoning.**

Publications

* indicates equal contribution

Efficient Agent Training for Computer Use

Preprint

Yanheng He*, Jiahe Jin*, Pengfei Liu

2025

- Introduces PC Agent-E, an efficient agent training framework that significantly reduces reliance on large-scale human demonstrations. With just 312 high-quality trajectories, PC Agent-E outperforms Claude 3.7 Sonnet, setting a new open-source SOTA for Windows computer use.

Revisiting 3D LLM Benchmarks: Are We Really Testing 3D Capabilities?

ACL Findings

Jiahe Jin*, Yanheng He*, Mingyan Yang*

2025

- Identifies “2D-Cheating” problem in 3D LLM evaluation, where tasks can be solved using 2D rendered images instead of true 3D understanding, and proposes better evaluation principles to assess genuine 3D capabilities.

PC Agent: While You Sleep, AI Works - A Cognitive Journey into Digital World

Preprint

Yanheng He*, Jiahe Jin*, Shijie Xia, Jiadi Su, Runze Fan, Haoyang Zou, Xiangkun Hu, Pengfei Liu

2024

- Introduces PC Tracker, a lightweight infrastructure for efficiently collecting large-scale human-computer interaction trajectory data, enabling AI agents to learn complex digital work from human demonstration.

Synthesizing Verified Mathematical Problems

NeurIPS MATH-AI Workshop

Xuefeng Li, Yanheng He, Pengfei Liu

2024

- Synthesizes verifiable math problems by converting them to code-based algorithms and generating new contextualized variations.

Honors & Awards

2025 **National Scholarship**, Top 0.2% national-wide

China

2024 **Foresight-HongShan Scholarship**, 5 winners at Shanghai Jiao Tong University

SJTU

2024 **Outstanding Summer School Student**, Best of Shanghai Jiao Tong University

PKU-THU-SJTU

2023 **Longfor Scholarship**, 10 winners at Shanghai Jiao Tong University

SJTU

2022 **First Prize**, The 14th Chinese Mathematics Competitions

Shanghai

Teaching

2024 **Teaching Assistant**, Optimization

SJTU

2024 **Teaching Assistant**, Data Structure

SJTU

2023 **Teaching Assistant**, Programming

SJTU

Selected Projects

ACore

SYSTEM

- Built a **Microkernel OS** from scratch featuring U-mode process management, SV39 virtual memory, and a Bash-like shell.

Rust

2024

Mx Compiler

COMPILER

- Developed a **10k+ lines compiler** for a C-and-Java-like language, utilized LLVM IR and implemented several optimizations.

Java

2023

RISC-V CPU

ARCHITECTURE

- Designed a RISC-V CPU with the Tomasulo algorithm and successfully deployed it on a FPGA platform.

Verilog

2023-2024

Skills

Programming Languages *Python, Rust, C/C++, Java, Verilog*