Yitong Li

 github.com/Lyt060814   lyt060814.github.io

✉ yitongli0814@gmail.com   (+852) 64746910

RESEARCH INTEREST

My research interests mainly lie in the field of **AI Agent**, and my long-term research vision is to build **proactive agents that can continuously work and learn in a human-like way**, and to apply such agents in **real-world workplace scenarios**. In detail, I am particularly interested in the following concrete research topics:

- **Applied Agent System:** Applying agents in real-world scenarios like deep research, software engineering, computer-using, etc.
- **Test-Time Scaling:** Increasing computation at inference time to improve performance
- **Self-Improving Agent:** Enabling agents to autonomously learn from their own experience, feedback, or failures
- **Multi-Agent Collaboration:** Coordinating multiple agents to solve complex tasks

EDUCATION

The University of Hong Kong   *09/2024 - 06/2028 (expected)*
Bachelor of Engineering in Computer Science   *Hong Kong*

- **GPA: 4.15/4.3**
- **Selected Courses:** Introduction to data structures and algorithms (**A**), Computer programming I/II (**A**), Computer organization (**A+**), Discrete mathematics (**A**), Linear algebra, probability and statistics (**A+**), Calculus and ordinary differential equations (**A+**), Introductory quantum physics (**A**), Object-oriented programming and Java, Principles of operating systems, Modern Technologies on World Wide Web

HONORS

- **Silver Medalist, 39th Chinese Physics Olympiad (CPhO) Finals**   *10/2022*
- **First Prize**, 39th Chinese Physics Olympiad (CPhO) Semifinal Round (***top 20 in Shanghai***)   *09/2022*
- **First Prize**, 40th Chinese Physics Olympiad (CPhO) Semifinal Round   *09/2023*
- **First Class Award** (**Ranked 17th Nationwide**), 19th Pan-Pearl River Delta and Chinese Elite Schools Physics Olympaid (*organized by Hong Kong Physics Olympiad*)   *02/2023*

EXPERIENCE

Shanghai Changxin Intelligence Technology Co., Ltd.   *08/2025 - 11/2025*
AI Developer Intern   *Fudan University, Shanghai*

- Built an **end-to-end autonomous agent** that scans GitHub repos, plans deployments, self-recovers from errors with ReAct pattern, and automatically exposes deployed services as APIs. Successfully deployed across **50+ repositories (73% success rate)** with built-in testing and long-term memory-driven continuous improvement.
- Developed a **Deep Research Agent** that automatically decomposes queries, retrieves and filters web sources in parallel, recursively fills knowledge gaps, and synthesizes research reports. `[Repo]`
- Built a multimodal AI studio for **image/video understanding, generation, and editing** using frontier models including Nano Banana, Sora 2, Whisper, CosyVoice, Flux, etc.

Shanghai Jiahui Elite Education Training Co., Ltd.   *07/2024 - 08/2024*
Teaching Assistant (*CPhO*)   *Shanghai*

- Managed the full lifecycle of a training program for **200+ students**, including problem design, instruction, grading, score analysis, and Q&A support.
- Coached students to achieve top results, with **95%** of all Shanghai First-Prize winners in the National Physics Olympiad coming from the program, and **three** students winning gold medals at **IPhO and APhO**.

PROJECTS

Agentic Stacking: Stack small models to approach large model performance *10/2025 - 12/2025*
Personal Project **[Repo]**

- Built an **automated SLM composition framework** using three-phase pipeline (warm-up, stacking, testing) to search **optimal multi-model hierarchies**, leveraging ReAct agents with forced tool-calling constraints to enable collaborative reasoning among small models (Llama/Qwen/DeepSeek) on **MATH-500** and **GPQA** benchmarks.
- Designed **intelligent caching layer** for Agent_tool wrappers that achieved **75%** token cost reduction during training through $O(1)$ lookup of repeated inference results.

AI2Apps: A Distributed PC-Side AI Agent Platform *07/2025 - 11/2025*
Core Contributor, 400+ stars **[Repo]**

- Improved the **agent infrastructure** of AI2Apps platform, including sandbox for code execution, RAG knowledge base for long-term memory and atomic tools like web search (API & RPA), bash command (brew, conda, git, etc.) and file operation (ReadFile, WriteFile, ModifyFile).
- Enriched **AI application ecosystem** by adding deployable and useful models, including Coqui-TTS, FastVLM, SAM 2, Whisper, etc.

SKILLS

Agent Framework	LangChain, LangGraph, OpenAI/Claude Agent SDK, Pydantic AI
Programming	Python (PyTorch), C/C++, JavaScript, Java, Bash, LaTeX, MatLab
Tools & Software	Git, Conda, Docker, WSL 2, OpenRouter, Cursor, Claude Code, NotebookLM
Languages	Chinese, English