

YITAO LIU

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🎓 EDUCATION

Wuxue High School, China Sep. 2019 – June. 2021

- Completed high school in **2 years** (normally 3 years in China)
- NJCEE (Gaokao) **Top 0.05%**, Rank 64/147,100, Score 689/750

The University of Hong Kong (HKU), Hong Kong Sep. 2021 – now

BEng in Computer Science (CS)

- GPA 3.87/4.3, **Dean's Honors List**

Princeton University, United States Jan. 2024 – May. 2024

Exchange student in Computer Science (CS)

👨‍🔬 RESEARCH EXPERIENCE

Research Assistant HKU CS Department Feb. 2023 – Oct. 2023

Advised by Dr. Tao Yu

Research interests: Language Agents (XLang Agents); Large Language Model (Lemur); Reinforcement Learning (Text2Reward)

📖 PUBLICATIONS

* Equal contribution. Authors in alphabetical order.

1. Tianbao Xie*, Siheng Zhao*, Chen Henry Wu, **Yitao Liu**, Qian Luo, Victor Zhong, Yanchao Yang, Tao Yu, **Text2Reward: Dense Reward Generation for Reinforcement Learning**, *In submission*: International Conference on Learning Representations (ICLR) 2024 [paper] [project]
 - Design reward functions is a longstanding challenge in RL which requires specialized knowledge or domain data.
 - Given a goal in natural language, our proposed framework generates dense reward function as an executable program grounded in a compact representation of the environment, with a choice to interactively improve it.
 - Evaluate our method on 4 different robotic environments, as well as successfully deploy the policy on a real robot.
2. Yiheng Xu*, Hongjin Su*, Chen Xing*, Boyu Mi, Qian Liu, Weijia Shi, Binyuan Hui, Fan Zhou, **Yitao Liu**, Tianbao Xie, Zhoujun Cheng, Siheng Zhao, Lingpeng Kong, Bailing Wang, Caiming Xiong, Tao Yu, **Lemur: Harmonizing Natural Language and Code for Language Agents**, *In submission*: International Conference on Learning Representations (ICLR) 2024 [project] [model] 📄12k+

👉 PROJECTS

- XLang Agents
 - An Open-Source Framework for Building Language Model Agents via Executable Language Grounding
 - Responsible for framework design and implementation of Plugin Agents and Web Agents
 - Technical blog here
- Official website and App of Rights and Interests Committee, the University of Hong Kong
 - Full-stack engineer
 - 4000+ users

🏆 HONORS & AWARDS

- **HKU Undergraduate Entrance Scholarship for Outstanding Students** (full tuition covered), the highest honor for HKU undergraduate students 2021 - 2025
- Dean's Award for Engineering Students, 10 quotas faculty-wide 2021 - 2022
- Dean's Honors List, top 10% students faculty-wide 2021 - 2022

SKILLS

- Programming Languages: Python, C++, C, HTML, CSS, Javascript, Typescript, Bash, \LaTeX , Markdown, Java
- Platform: Linux, Mac
- Tech Skills: PyTorch, Git, React, CMake, Gym, Stable Baseline, MuJoCo
- Languages: English - Fluent, Mandarin - Native