

WEIHUA DU

@ weihuad@cs.cmu.edu ☎ (+1) 347 251 2777 / (+86) 180 6877 8796 ✉ GHC 6711, Carnegie Mellon University, Pittsburgh, PA, US
🌐 <https://stiglidu.github.io> 🏠 StigLidu 📄 <https://scholar.google.com/citations?user=6CqQ4L8AAAAJ>

EDUCATION

Ph.D. Student in Language Technologies Institute

Carnegie Mellon University

📅 Aug. 2024 – Ongoing

📍 Pittsburgh, US

- Co-advised by Prof. Yiming Yang and Prof. Sean Welleck.
- Working on LLM agents, including improving robustness and capacity of agents, designing effective inference-time algorithms, and developing methods for long-context management towards complex tasks.

Bachelor of Engineering in Computer Science (Yao Class)

Tsinghua University

📅 Sep. 2020 – Jun. 2024

📍 Beijing, China

- GPA 3.94 / 4.00;
- Gold medalist at the 2018 China National Olympiad in Informatics (CNOI).

Visiting Student

Massachusetts Institute of Technology

📅 Feb. 2023 – Aug. 2023

📍 Cambridge, US

- Advised by Prof. Joshua B. Tenenbaum and Prof. Chuang Gan.
- Specializing in LLM Agents and Embodied AI.

RESEARCH EXPERIENCE

Research Intern

ByteDance Seed

📅 May. 2025 – Aug. 2025

📍 San Jose, US

- Advised by Dr. Jiecao Chen;
- **Research:** Reinforcement training for LLM agents and long-context management [10, 11].

Visiting Student

MIT-IBM Watson AI Lab, Massachusetts Institute of Technology

📅 Feb. 2023 – Jun. 2024

📍 Cambridge, US / Remote

- Advised by Prof. Joshua B. Tenenbaum and Prof. Chuang Gan;
- **Research:** LLM Agents, Embodied AI, Multi-Agent Collaboration [3, 4, 6].

Research Intern

Shanghai Artificial Intelligence Laboratory

📅 Aug. 2023 – Jul. 2024

📍 Shanghai, China

- Advised by Dr. Wenwei Zhang and Dr. Kai Chen;
- **Research:** Iteration of InternLM, focusing on improving tool calling capabilities [5].

Research Intern

Institute for Interdisciplinary Information Sciences (IIIS)

📅 Jun. 2022 – Jan. 2023

📍 Beijing, China

- Advised by Prof. Yi Wu;
- **Research:** Reinforcement learning application for the building industry [1] and an RL algorithm for policy diversity [2].

PUBLICATION

(SORT BY PUBLICATION DATE IN DESCENDING ORDER. *DENOTES EQUAL CONTRIBUTION)

[12] Training Proactive and Personalized LLM Agents [link]

ArXiv

Authors: Weiwei Sun, Xuhui Zhou, **Weihua Du**, Xingyao Wang, Sean Welleck, Graham Neubig, Maarten Sap, Yiming Yang

[11] Scaling LLM Multi-turn RL with End-to-end Summarization-based Context Management [link]

ArXiv

Authors: Miao Lu, Weiwei Sun, **Weihua Du**, Zhan Ling, Xuesong Yao, Kang Liu, Jiecao Chen

[10] Generalizable End-to-End Tool-Use RL with Synthetic CodeGym [link]

ICLR 2026

Authors: **Weihua Du**, Hailei Gong, Zhan Ling, Kang Liu, Lingfeng Shen, Xuesong Yao, Yufei Xu, Dingyuan Shi, Yiming Yang, Jiecao Chen

[9] ZeroTuning: Unlocking the Initial Token’s Power to Enhance Large Language Models Without Training [link]

ICLR 2026

Authors: Feijiang Han, Xiaodong Yu, Jianheng Tang, Delip Rao, **Weihua Du**, Lyle Ungar

[8] Agentic-R1: Distilled Dual-Strategy Reasoning [link]

EMNLP 2025

Authors: **Weihua Du**, Pranjal Aggarwal, Sean Welleck, Yiming Yang

[7] Optimizing Temperature for Language Models with Multi-Sample Inference [link]

ICML 2025

Authors: **Weihua Du**, Yiming Yang, Sean Welleck

[6] Constrained Human-AI Cooperation: An Inclusive Embodied Social Intelligence Challenge [link]

NeurIPS D&B 2024

Authors: **Weihua Du***, Qiushi Lyu*, Jiaming Shan, Zhenting Qi, Hongxin Zhang, Sunli Chen, Andi Peng, Tianmin Shu, Kwonjoon Lee, Behzad Dariush, Chuang Gan

[5] T-Eval: Evaluating the Tool Utilization Capability of Large Language Models Step by Step [link]

ACL 2024

Authors: Zehui Chen*, **Weihua Du***, Wenwei Zhang*, Kuikun Liu, Jiangning Liu, Miao Zheng, Jingming Zhuo, Songyang Zhang, Dahua Lin, Kai Chen, Feng Zhao

[4] Building Cooperative Embodied Agents Modularly with Large Language Models [link]

ICLR 2024

Authors: Hongxin Zhang*, **Weihua Du***, Jiaming Shan, Qinhong Zhou, Yilun Du, Joshua B. Tenenbaum, Tianmin Shu, Chuang Gan

[3] HAZARD Challenge: Embodied Decision Making in Dynamically Changing Environments [link]

ICLR 2024

Authors: Qinhong Zhou*, Sunli Chen*, Yisong Wang, Haozhe Xu, **Weihua Du**, Hongxin Zhang, Yilun Du, Joshua B. Tenenbaum, Chuang Gan

[2] Iteratively Learn Diverse Strategies with State Distance Information [link]

NeurIPS 2023

Authors: Wei Fu, **Weihua Du**, Jingwei Li, Sunli Chen, Jingzhao Zhang, Yi Wu

[1] Automatic Truss Design with Reinforcement Learning [link]

IJCAI 2023

Authors: **Weihua Du***, Jinglun Zhao*, Chao Yu, Xingcheng Yao, Zimeng Song, Siyang Wu, Ruifeng Luo, Zhiyuan Liu, Xianzhong Zhao, Yi Wu

SELECTED PRIZES

| | | |
|--|---|-----------|
| Outstanding Graduate of Yao Class | Top 20% graduates in Yao Class | Jun. 2024 |
| SenseTime Scholarship | Top 30 undergraduates in AI within China | Dec. 2023 |
| Zheng Geru Scholarship | Comprehensive Excellent Award in Tsinghua University, top 20% | Oct. 2023 |
| Andrew C. Yao Award (Recognition Prize) | Scholarship in Yao Class, top 20% | Sep. 2023 |
| Mr. and Mrs. Qu Yuzhi Scholarship | Academic & Sport Award in Tsinghua University | Oct. 2022 |
| China Collegiate Programming Contest (CCPC), Weihai Site | Rank 4, Gold Medal | Nov. 2021 |
| Mr. and Mrs. Huang Yicong Scholarship | Comprehensive Excellent Award in Tsinghua University, top 20% | Oct. 2021 |
| China National Olympiad in Informatics (CNOI) 2018 | Rank 32, Gold Medal | Aug. 2018 |

SERVICE

- **Reviewer:** ICML 2025/2026, NeurIPS 2025, SCALR@COLM 2025, AAAI 2026, ICLR 2026
- **Student Organizing Committee:** LTI-SRS 2025
- **Teaching:**
 - Teaching Assistant: Advanced NLP, Spring 2026
- **Student Supervision:**
 - Qiushi Lyu (2024, Undergraduate at PKU; now Ph.D. at UIUC)
 - Ningyuan Yang (2025, Undergraduate at THU)
 - Yinjie Wang (2025, Ph.D. at UChicago)
- **Volunteer:**
 - Student Development Center of Tsinghua University. (187 hrs documented volunteer service)