

HAI ZHANG

✉ zhanghai12138@tongji.edu.cn · 🌐 betray12138 (the same as zhihu)

🎓 EDUCATION

TONGJI UNIVERSITY, SHANGHAI, CHINA 2022.09 – 2025.03 (expected)

MASTER, COMPUTER SCIENCE AND TECHNOLOGY
with GPA of 85.19/100

TONGJI UNIVERSITY, SHANGHAI, CHINA 2018.09 – 2022.06

BACHELOR, COMPUTER SCIENCE AND TECHNOLOGY
with GPA of 4.76/5.0, general ranking of 8/155, top 5.16%

📌 SKILLS AND AWARDS

- Graduate National Scholarship (top 0.2%) 2023.09 – 2024.08
- TOEFL 2024.03
- Outstanding Undergraduate Thesis 2022.06
- Scholarship for outstanding students for three consecutive years 2018.09 – 2021.08

📖 SELECTED PAPERS

* means co-first author, † means corresponding author

- **Scrutinize What We Ignore: Reining In Task Representation Shift In Context-Based Offline Meta Reinforcement Learning.** Hai Zhang, Boyuan Zheng, Tianying Ji, Jinhang Liu, Anqi Guo, Junqiao Zhao†, Lanqing Li†. *Under review in ICLR 2025*
- **How to Fine-tune the Model: Unified Model Shift and Model Bias Policy Optimization.** Hai Zhang, Hang Yu, Junqiao Zhao†, Di Zhang, Chang Huang, Hongtu Zhou, Xiao Zhang, and Chen Ye. *In NeurIPS 2023*
- **Towards an Information Theoretic Framework of Context-Based Offline Meta-Reinforcement Learning.** Lanqing Li* (supervisor), Hai Zhang*, Xinyu Zhang, Shatong Zhu, Yang Yu, Junqiao Zhao†, and Pheng-Ann Heng. *In NeurIPS 2024 Spotlight*
- **Safe Reinforcement Learning with Dead-Ends Avoidance and Recovery.** Xiao Zhang, Hai Zhang, Hongtu Zhou, Chang Huang, Di Zhang, Chen Ye†, Junqiao Zhao†. *In IEEE Robotics and Automation Letters 2023 (Oral in ICRA 2024)*
- **Focus On What Matters: Separated Models For Visual-Based RL Generalization.** Di Zhang, Bowen Lv, Hai Zhang, Feifan Yang, Hongtu Zhou, Chang Huang, Hang Yu, Chen Ye, Junqiao Zhao†, and Changjun Jiang. *In NeurIPS 2024*

👥 RESEARCH EXPERIENCE

QIZHI INSTITUTE(Tsinghua University IIIS) SHANGHAI, CHINA 2024.06 – up to now

RESEARCH INTERN supervised by Prof. Yang Gao

Explore the generalization ability towards robotic manipulation via VLA architecture.

ZHEJIANG LAB(CUHK) HANGZHOU, ZHEJIANG, CHINA 2023.07 – 2024.05

RESEARCH INTERN supervised by Prof. Lanqing Li & Prof. Pheng-Ann Heng

Explore the generalization ability towards offline meta-reinforcement learning with the model-based techniques.

PROJECTS

OpenVLA-PLUS.

2024.06 – up to now

- Role: Substitute the backbone of OpenVLA from Llama2 7B to a small model with only 0.2B parameters to achieve computational and communication reduction. (FSDP → DDP)
- Performance improvement on LIBERO-Long benchmark is 53.7% → 75.6% with only 1.5 hours training on 8 × A800 GPUs.

Distributed Complete Vehicle Cloudization

2022.05 – 2023.01

- Invention Patent (Submitted, Patent Number: 202310899331.2)
- National Key R&D Program
- Role: Use the distributed framework to achieve cloud-based transmission of vehicle information.

NIO, SHANGHAI, CHINA

2021.10 – 2022.03

- Intern for Backend Development Engineer
- Role: Use MongoDB and Redis database, Kafka consumer group to solve distributed events.

Unknown Environment Exploration and Application Device Based on Deep Reinforcement Learning

2020.05 – 2021.03

- Innovation and Entrepreneurship Program for SHANGHAI University Students.
- Role: Use representation learning combined with RL to achieve end-to-end vehicle driving on CARLA.

COMPETITIONS

RLChina Intelligent Agent Challenge Nonin Spring Season Curling Challenge

- Second Place in finals, Sixth Place in total scores
- Role: Optimize PPO and rule-based agent to complete curling strikes in a POMDP environment

WAIC: Meta-verse Lights Up Autonomous Driving, AI Simulation Driving Competition

- Second Place (Unique), won 40 thousand RMB
- Role: Process the perceptual information and Design the code of the decision state machine

Intel Cup National College Students Embedded System Invitational Competition

- National Second Prize
- Role: Design the overall architecture and complete the full-view image stitching

PROFESSIONAL SERVICE

- Reviewer: ICLR 2025