

## Education

### SJTU (Shanghai Jiao Tong University)

B.E. IN COMPUTER SCIENCE AND TECHNOLOGY

Shanghai, China

Sep. 2022 - Present

- IEEE Honors Class
- GPA: 90.4/100
- Relevant Coursework: Mathematics Analysis (90/100) · Linear Algebra (94/100) · Probability and Statistics (94/100) · Linear and Convex Optimization (96/100) · Information Theory (93/100) · Discrete Mathematics (91/100)

## Publications

### Bridging the Sim-to-Real Gap from the Information Bottleneck Perspective

HAORAN HE, PEILIN WU, CHENJIA BAI, HANG LAI, LINGXIAO WANG, LING PAN, XIAOLIN HU, WEINAN ZHANG

Apr. - Jun. 2024

CoRL (Oral), 2024

- Proposed an efficient and effective sim-to-real transfer method inspired by information bottleneck, which leverages the historical information and latent space, and exhibits better robustness and performance compared with state-of-the-art (SOTA) methods.
- Provided a theoretical analysis to model the sim2real gap concerning privileged information and historical trajectories.

### LoopSR: Looping Sim-and-Real for Lifelong Policy Adaptation of Legged Robots

PEILIN WU, WEIJI XIE, JIAHANG CAO, HANG LAI, WEINAN ZHANG

Jun. - Sep. 2024

Submitted to ICRA, 2025

- Designed a lifelong policy adaptation framework, which utilized a mix of retrieval-based and learning-based methods to reconstruct the real world in simulation, and optimized the policy during real-world deployment.
- Outperformed existing methods in both robustness and performance by leveraging both simulation pre-training and real-world data, and successfully handling problems like catastrophic forgetting.

## Research Experience

### Shanghai Jiao Tong University

RESEARCH ASSISTANT AT APEX LAB, ADVISED BY PROF. WEINAN ZHANG

Shanghai, China

Sep. 2023 - Present

Research Topic:

### Shanghai Jiao Tong University

RESEARCH ASSISTANT AT MAGIC LAB, ADVISED BY PROF. SIHENG CHEN

Shanghai, China

Jul. 2023 - Mar. 2024

Research Topic:

## Other Projects

### Drone System Construct and Communication for UAV swarm

RESEARCH ASSISTANT AT MAGIC LAB, ADVISED BY PROF. SIHENG CHEN

Shanghai, China

Aug. 2023 - Mar. 2024

- Constructed a drone system based on ROS carrying GPS sensor and USB camera, which has the ability to locate humans and cars.
- Implemented the communication for UAV swarm based on TCP/UDP.

### EcoCat: Universal Search Engine for Financial News

COURSE PROJECT LEADER FOR ICE2602 INTRODUCTION TO ENGINEERING FOR ELECTRONIC INFORMATION

Shanghai, China

Nov. - Jan. 2023

- Developed a universal search engine for financial news based on crawler technology, information retrieval and front-end technology.

### Vision System for 6-DoF Robot Arm

TEAM MEMBER AT SJTU ROBOMASTER TEAM IN ROBOMASTER COMPETITION 2023

Shenzhen, China

Feb. - Aug. 2023

- Designed the algorithm to identify the camera pose and desired end effector pose from RGB image.
- Constructed a thorough pipeline to connect the sensor, PC, and lower computer based on ROS and serial communication.

## Honors & Awards

2023 **1st Prize**, China University Robot Competition RoboMaster

2022-2024 **Zhiyuan Honorary Scholarship**, top 5 % students in SJTU

## Skills

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|--------------------|--|
| <b>Programming</b> | Python, C/C++,  LaTeX, MATLAB, HTML, CSS, JavaScript |
| <b>Frameworks</b>  | PyTorch, Tensorflow, NumPy, OpenCV, ROS, Flask       |
| <b>Language</b>    | Chinese, English (TOEFL 112, GRE 328+3.0)            |