

SHUAI ZHOU

Final-year Undergraduate Student of Robotics

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EDUCATION

CARNEGIE MELLON UNIVERSITY

Master of Science in Robotics

Pittsburgh, USA

Sep 2026 — Jun 2028

SOUTH CHINA UNIVERSITY OF TECHNOLOGY

Bachelor of Engineering in Robotics; GPA: 3.86/4.00

Guangzhou, China

Sep 2022 — Jun 2026

CARNEGIE MELLON UNIVERSITY

Visiting Scholar in Robotics Institute

Pittsburgh, USA

Jun 2025 — Mar 2026

UNIVERSITY OF CALIFORNIA, BERKELEY

Exchange Student in EECS; GPA: 4.00/4.00

Berkeley, USA

Aug 2023 — Dec 2023

RESEARCH INTEREST

Over the next several years, I am interested in building and deploying next-generation decision-making systems for robotics, pursuing two complementary directions: world models and VLA frameworks for generalizable embodied reasoning, and the unification of classical control/planning with learned world abstractions for complex long-horizon tasks.

PUBLICATION(† equal contribution)

UNDER REVIEW

- [1] **LAMP: Long-Horizon Adaptive Manipulation Planning for Multi-Robot Collaboration in Cluttered Space**
[Shuai Zhou](#), Yorai Shaoul, Jiaoyang Li.
Under Review, 2026.
- [2] **Learning Versatile Humanoid Manipulation with Touch Dreaming**
Yaru Niu†, Zhenlong Fang†, [Shuai Zhou†](#), Binghong Chen, Revanth Krishna Senthilkumaran, Hao Zhang, Bingqing Chen, Chen Qiu, Hongtei (Eric) Tseng, Jonathan Francis, Ding Zhao.
Under Review, 2026. [\[Web\]](#)
- [3] **Bridging Planning and Execution: Multi-Agent Path Finding Under Real World Deadlines**
Jingtian Yan†, [Shuai Zhou†](#), Stephen Smith, Jiaoyang Li.
Under Review, 2026. [\[Paper\]](#)

PUBLISHED

- [4] **LSRP*: Scalable and Anytime Planning for Multi-Agent Path Finding with Asynchronous Actions**
[Shuai Zhou](#), Shizhe Zhao, Zhongqiang Ren.
SoCS, 2025. [\[Paper\]](#) [\[Web\]](#)
- [5] **Loosely Synchronized Rule-Based Planning for Multi-Agent Path Finding with Asynchronous Actions**
[Shuai Zhou](#), Shizhe Zhao, Zhongqiang Ren.
AAAI, 2025. [\[Paper\]](#) [\[Code\]](#) [\[Web\]](#)

RESEARCH EXPERIENCE

HKUST (GUANGZHOU), [IPRN Lab](#)

Mentor: [Wengxuan Song](#), Supervisor: Prof. [Haoang Li](#)

Guangzhou, China

Mar 2026 — Present

- **Research Topics:** Foundation Model, Vision-language-action model, world model.
- To be announced

CARNEGIE MELLON UNIVERSITY, [SAFE AI Lab](#)

Mentor: [Yaru Niu](#), Supervisor: Prof. [Ding Zhao](#)

Pittsburgh, USA

Aug 2025 — Mar 2026

- **Research Topics:** Manipulation, Cross-Embodiment, Whole-Body Controller.
- Learning versatile humanoid manipulation policy and developing robust lower-body controller [2].
- Egocentric cross-embodiment learning for versatile manipulation, experimenting with co-training/pretraining-finetuning policy on multiple embodiments (G1 Humanoid, Go1 Quadruped, and X-ARM 7).
- Collaborating with Stanford to collect a comprehensive physical robot dataset for tool use.

CARNEGIE MELLON UNIVERSITY, [ARCS Lab](#)

Mentor: [Yorai Shaoul](#), [Jingtian Yan](#), Supervisor: Prof. [Jiaoyang Li](#)

Pittsburgh, USA

Apr 2025 — Mar 2026

- **Research Topics:** Learning for Planning, Heuristic Search, Multi-Robot System.
- Collaborative multi-robot non-prehensile manipulation via flow-matching model and lazy planning [1].
- Learning execution-time prediction models for closed-loop multi-robot coordination and dependency optimization [3].

SHANGHAI JIAO TONG UNIVERSITY [RAP Lab](#)

Supervisor: Prof. [Zhongqiang Ren](#)

Shanghai, China

Apr 2024 — Apr 2025

- **Research Topics:** Heuristic Search, Multi-Robot System.
- Developed scalable planners for Multi-Robot Path Planning that scale to 1,000+ robots [5].
- Designed complete, anytime planning framework with pruning and sorting strategies that accelerated search [4].

SKILLS

Professional Services: Program Chair Member/Reviewer (IROS 2025)

Platforms: Unitree G1 Humanoid, Unitree Go1 Quadruped, UFACTORY X-ARM 7, Vicon

Simulators: Isaacsim, MuJoCo, PyBullet

Programming: Python, C++, Java, HTML, MATLAB, \LaTeX

Online Course: MIT: [6.S184 Flow-matching & Diffusion Model](#), UCB: [CS 285 Deep RL](#), Stanford: [CS 231n Deep learning for CV](#), CMU: [16-831 Intro to Robot Learning](#), CMU: [10-601 Intro to ML](#), CMU: [16745 Optimal Control](#), CMU: [16-782 Planning in Robotics](#), UPenn: [Computational Motion Planning](#), UPenn: [Aerial Robotics](#)

HONORS AND AWARDS

Outstanding Visiting Student Fellowship from USIEA

Awarded to the top student in the UC Berkeley Global Access program; received 6,000 CNY

Guangzhou, China

Mar 2024

Merit Student of South China University of Technology

Top student in Robotics Engineering, Class of 2022

Guangzhou, China

Feb 2024

The Third Prize Scholarship by South China University of Technology

Top 10% of students, receiving 10,000 CNY

Guangzhou, China

Dec 2023

Exchange Student Fellowship from South China University of Technology

Awarded to outstanding students for overseas exchange, receiving 40,000 CNY

Guangzhou, China

Jul 2023