

Zhuxiu Xu

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EDUCATION BACKGROUND

Shanghai Jiao Tong University

Sep. 2022 – Expected Jun. 2027

Bachelor of Engineering Candidate in Mechanical Engineering
School of Mechanical Engineering

RESEARCH INTERESTS

Mechanical Design, Simulation, Reinforcement learning, Tactile and Robotics.

PUBLICATIONS

- **Design and implementation of a bone-shaped hybrid aerial underwater vehicle**
Yuanbo Bi, **Zhuxiu Xu**, Yishu Shen, Zheng Zeng, Lian Lian
[IEEE Robotics and Automation Letters \(RA-L\)](#), 2024.
- **Nezha-MB: Design and implementation of a Morphing Hybrid Aerial-Underwater vehicle**
Zhuxiu Xu*, Yishu Shen*, Yuanbo Bi, Baichuan Zeng, Zheng Zeng.
[IEEE International Conference on Robotics and Automation \(ICRA\)](#), 2025
- **Reactive Aerobatic Flight via Reinforcement Learning**
Zhichao Han, Xijie Huang, **Zhuxiu Xu**, Jiarui Zhang, Yuze Wu, Mingyang Wang, Tianyue Wu, Fei Gao.
[IEEE Robotics and Automation Letters \(RA-L\)](#), 2025.
- **GenDexHand: Generative Simulation for Dexterous Hands**
Feng Chen*, **Zhuxiu Xu***, Tianzhe Chu, Xunzhe Zhou, Li Sun, Zewen Wu, Shenghua Gao, Zhongyu Li, Yanchao Yang, Yi Ma
[arXiv](#)(preprint)
- **DexHoldem: Playing Texas Hold'em with Dexterous Embodied System**
Feng Chen*, Tianzhe Chu*, Li Sun*, Pei Zhou*, **Zhuxiu Xu**, Shenghua Gao, Yuexiang Zhai, Yanchao Yang, Yi Ma
[arXiv](#)(preprint)
- **DexCompose: Reusing Dexterous Policies for Multi-Task Manipulation with a Single Hand**
Dihong Huang, Zhenyu Wei, **Zhuxiu Xu**, Yunchao Yao, Sikai Li, Mingyu Ding
Submitted to [CoRL 2026](#)
[arXiv](#)(preprint)
- **DexVerse: A Modular Benchmark for Multi-Task, Multi-Embodiment Dexterous Manipulation**
Yunchao Yao*, **Zhuxiu Xu***, Tianqi Zhang, Zixian Liu, Sikai Li, Feng Chen, Zhenyu Wei, Dihong Huang, Kechang Wan, Chenyang Ma, Shuqi Zhao, Shenghua Gao, Masayoshi Tomizuka, Yi Ma, Mingyu Ding
Submitted to [CoRL 2026](#)
[arXiv](#)(preprint)

ACADEMIC EXPERIENCES

Mechanical Systems Control Lab, UC Berkeley, Prof.Masayoshi Tomizuka and Prof.Mingyu Ding
Simulation and Robot Learning

Remote Intern (student)

Feb. 2026 — Now

- Developing dexhand benchmark in simulation and research on dexhand dynamic control.

Institute of Data Science, The University of Hong Kong, Prof.Yi Ma
Learning

Simulation and Robot

Intern (student)

Feb. 2025 — Now

- Developing a generative simulation for dex manipulation and research how to do better dex manipulation.

Fast Lab, Zhejiang University, Prof.Fei Gao

Learning and Planning

Intern (student)

Jun. 2024 — Feb. 2025

- Developing a reinforcement learning-based integrated system for UAV planning and control.

Institute of Robotics, Shanghai Jiao Tong University, Prof.Wei Dong *Perception and localization*
Intern (student) Jan. 2024 — Jun. 2024

- Studying on active perception and state estimation in degraded environments

Nezha Laboratory, Shanghai Jiao Tong University, Prof.Zheng Zeng *Control and Design*
Intern (student) Aug. 2023 — Jun. 2024

- Developed new hybrid underwater aerial vehicle and new cross-domain control algorithm.

SKILLS

- C++ / C / Python /Pytorch / Matlab
- Linux, ROS, PyTorch, OpenCV, Flightmare, Solidworks
- Robotics system development
- Hobbies: Bodybuilding, Travel, Driving