

Xuanbin Peng

Contact: xuanbin.peng@gmail.com

Website: <https://peng-bryant.github.io>

EDUCATION

Harbin Institute of Technology, Shenzhen

Shenzhen, CHN

Junior Student in Automation

Sep. 2021 – now

- CGPA: 94.98/100 Ranking: 2/256
- Advised by Xiaogang Xiong

University of California, San Diego

San Diego, US

One Year Exchange Student

Fall 2023 – Spring 2024

- GPA: 4.0/4.0

PUBLICATIONS & PREPRINTS

- Qiwei Wu*, **Xuanbin Peng***, Jiayu Zhou, Zhouan Sun, Xiaogang Xiong, and Yunjiang Lou, "Semi-supervised Sim2real of Tactile Control Policies for Contact-Rich Manipulation Tasks", *IEEE International Conference on Robotics and Automation (ICRA)*, 2024.
Under Review.
- Tianlin Zhang, **Xuanbin Peng**, Sikai Guo, Xiaogang Xiong, Yang Bai, and Yunjiang Lou, "Whole-body Compliant Control for Quadruped Manipulator with Torque Saturation", *IEEE Robotics and Automation Letters (RA-L)*, 2023.
Under Review.

SELECTED HONORS & AWARDS

National Scholarship.(0.4%)	2022
National First Prize in RoboMaster2022 Robotics Contest.	2022
Fisrt-Class Undergraduate Academic Scholarship*2 (Ranking 1st).	2021-2023
Excellent Student*2.	2021-2023

SELECTED PROJECTS

Vision-Guided UAVs for Precision Targeting of Moving Objects <i>Critical HIT Lab</i> * High-speed flight capabilities for fast moving objects targeting. * Vision-based state estimation and feedback control with high accuracy and robustness against interference. * Model Predictive Control (MPC) for improved resilience and adaptability during flight and shooting operations.	Dec.2021–Feb.2022 <i>HITSZ</i>
A Versatile Mobile Robot With a Visual-aided Suction Gripper <i>Critical HIT Lab</i> * Three-DOF suction gripper: Enhanced grasping flexibility and precision. * Multifunctionality: Versatile robot for various tasks, like grasping and dragging. * Vision-based alignment: Improved accuracy and efficiency for manipulation tasks.	Apr.2022–Aug.2022 <i>HITSZ</i>
A Visualizing Pandemic Simulator for Analyzing Epidemic Dynamics <i>Advisor: Prof. Xiaojun Wu</i> * Interactive visualization interface. * Improved population modeling using a normal distribution model. * Optimized simulation performance with quadtree collision detection algorithm.	Jan.2022–Feb.2022 <i>HITSZ</i>
A Hybrid Legged-Wheeled Robot with Robustness and Efficiency <i>NG.XY Lab</i> * Hybrid legged-wheeled robot design for improved mobility and terrain adaptability. * Linear Quadratic Regulator (LQR) control methods for enhanced control performance. * Capable of demonstrating agility with various motions such as jumping and rotating.	Apr.2022–Aug.2022 <i>HITSZ</i>

SKILLS

Languages: English (*IELTS* :7.5), Mandarin Chinese (native)

Programming: C/C++, Python, HTML, JavaScript

Tools: Git, MATLAB/Simulink, PyTorch, ROS, STM32, Solidworks, OpenCV, Gazebo, L^AT_EX