

Zixin Tang

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Education

M.Sc. in Control Science and Engineering

- Sep 2016 - Location: National University of Defense Technology, Changsha, China
- ~ - Advisor: Prof. Dr. Xin Xu
- June 2020 - Thesis: Research on Deep Reinforcement Learning Methods of Manipulator Grasp Planning in Complex 3D Scenes

B.Eng. in Computer Science and Technology

- Sep 2020 - Location: Sichuan University, Sichuan, China
- ~ - GPA: 3.74 / 4.0; Rank: Top 5%
- June 2023 - Achievements: won scholarships, competition awards, and an exam-free postgraduate recommendation to National University of Defense Technology

Work Experience

Research Assistant

- Start in - Location: Shanghai AI Lab, Shanghai, China
- July 2023 - Focus on embodied intelligence and motion planning

Research Areas & Interests

- Areas: Robotics, Computer Vision, Deep Reinforcement Learning
- Interests: Embodied Intelligence with focuses on representation learning for multi-modal perception and long-horizon planning

Publications

- 2023 [J4] **CSGP: Closed-loop Safe Grasp Planning via Attention-based Deep Reinforcement Learning from Demonstrations**
Tang Z, Shi Y, Xu X
IEEE Robotics and Automation Letters (RA-L), vol.8, no. 6, pp. 3158-3165, Jun 2023
- [J3] A deep Koopman operator-based modelling approach for long-term prediction of dynamics with pixel-level measurements
Xiao Y, Tang Z, Xu X, Zhang X, Shi Y
CAAI Transactions on Intelligence Technology, Feb 2023
- [J2] Efficient reinforcement learning with least-squares soft Bellman residual for robotic grasping, 2023, 164: 104385.
Lan Y, Ren J, Tang T, Xu X, Shi Y, Tang Z
Robotics and Autonomous Systems (RAS), vol. 164, 104385, Apr 2023
- 2022 [J1] **SymmetryGrasp: Symmetry-Aware Antipodal Grasp Detection From Single-View RGB-D Images**
Shi Y, Tang Z, Cai X, Zhang H, Hu D, Xu X

IEEE Robotics and Automation Letters (**RA-L**), vol. 7, no. 4, pp. 12235-12242, Oct 2022
- The contents of this paper were also selected by **ICRA 2023** for oral presentation

2021 [C1] **Grasp Planning Based on Deep Reinforcement Learning: A Brief Survey**
Tang Z, Xu X, Shi Y
China Automation Congress (CAC), pp. 7293-7299, Oct 2021

Honors, Awards, & Fellowships

2020 Graduate Scholarship, National University of Defense Technology
2016~2019 Comprehensive & Individual Scholarship, Sichuan University
2017 Lenovo Intelligent Ecology University Innovation Competition Top 10 in SW China
2017 Outstanding Student, Sichuan University

Skills

Programming

Python, C/C++

Libraries

Pytorch, OpenCV, Open3D, etc.

Simulation Environments

CoppeliaSim (V-REP), Robosuite, MuJoCo, etc.

Real Robot Platform

Universal Robots (UR5), ROS (entry level)

Language

Chinese (native), English (conversational, CET6)