PINGCHENG JIAN

PhD student, Electrical and Computer Engineering, Duke University

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EDUCATION

Duke University

Sep. 2021 - present

Ph.D. in Electrical and Computer Engineering

Advisors: Michael Zavlanos, Boyuan Chen

Tsinghua University

Aug. 2016 - Jul. 2021

B.E. in Automation

Advisors: Huaping Liu, Mingguo Zhao

Transfer major from Mechanical Engineering (2016-2018)

to Automation (2018-2021)

RESEARCH INTERESTS

My current research is about robot learning, and my previous publications mostly focus on robotic manipulation. I also have education background in control theory, and I am very interested in the combination of machine learning and control theory.

PUBLICATIONS

(* equal contributions, ** alphabetical order. Up-to-date list can be found in my Google Scholar page.)

Conference Papers

- 1. [CoRL'23] Pingcheng Jian, Easop Lee, Zachary Bell, Michael M. Zavlanos, Boyuan Chen, "Policy Stitching: Learning Transferable Robot Policies", Conference on Robot Learning (CoRL), 2023. [website]
- 2. [ICRA'21] Pingcheng Jian*, Chao Yang*, Di Guo, Huaping Liu, Fuchun Sun, "Adversairial Skil Learning for Robust Manipulation", International Conference on Robotics and Automation (ICRA), 2021. [pdf] [video]
- 3. [L4DC'23] Reza Khodayi-mehr, Pingcheng Jian, Michael M. Zavlanos, "Physics-Guided Active Learning of Environmental Flow Fields", Learning for Dynamics and Control (L4DC), 2023. [pdf]

Under Review & Preprints

4. Minghao Zhang*, <u>Pingcheng Jian*</u>, Yi Wu, Huazhe Xu, Xiaolong Wang, "DAIR: Disentangled Attention Intrinsic Regularization for Safe and Efficient Bimanual Manipulation", *ICML workshop*, 2021. [website]

PROJECTS

 ${\bf Quadruped~Spider~Robot}, \ {\bf course~project~of~\it CS590~-Robot~\it Studio~at~\it Duke~\it University \\ }$

Project Video: [video]

I built all the hardware and software of this spider robot from scratch. I drew the parts of this robot with SOLIDWORKS and then printed them with 3D printer. The controller of this robot is a Raspberry Pi, and the control algorithm is written in Python. Then I generated the .urdf files of this robot and built the simulator of this robot with PyBullet.

TEACHING EXPERIENCES

Teaching Assistant at Duke University

ECE 382L/ME 344L - Control of Dynamic Systems [lecture] [recitation]

SKILLS

Programming Languages

Python, Matlab, C, C++, C#, HTML, Assembly Language

Machine Learning

Pytorch, Reinforcement Learning, Supervised Learning

Robotic Software

PyBullet, MuJoCo

Robotic Hardware

SOLIDWORKS, 3D printing