europass

Yasen Jia

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ABOUT ME

I am currently a first-year master student of BIT(Beijing Institute of Technology, China), majoring in Intelligent Robot and System, supervised by Prof.Yan Huang. Before that, I received my bachelor's degree in Mechatronical Engineering from BIT.

EDUCATION AND TRAINING

01/09/2020 – 01/07/2024 Beijing, China
B.ENG. IN MECHATRONICAL ENGINEERING Beijing Institute of Technology

01/09/2024 – CURRENT Beijing, China
M.ENG. IN INTELLIGENT ROBOT AND SYSTEMS Beijing Institute of Technology

PUBLICATIONS

2024
Effects of Prior Knowledge for Stair Climbing of Bipedal Robots Based on Reinforcement Learning

Prior knowledge of robots such as surrounding terrain information may improve the performance of climbing stairs. However, the impacts of prior knowledge on locomotion of bipedal robots across various terrains have not been systematically studied. In this work, we analyzed the effects of the amount of prior knowledge about terrain in front of the robot with RL-based control.

M. Su, Y. Jia and Y. Huang, "Effects of Prior Knowledge for Stair Climbing of Bipedal Robots Based on Reinforcement Learning," 2024 International Conference on Advanced Robotics and Mechatronics (ICARM), Tokyo, Japan, 2024, pp. 216-222

Link https://lupinjia.github.io/publication/icarm2024/

2025
Learning Multiple Locomotion on a Quadrupedal Robot through Mode-aware Reward Functions and Initial State Distribution Overlay

Quadrupedal locomotion and bipedal locomotion are two extensively investigated gaits which both have their respective advantages. Quadrupedal locomotion is more stable, whereas bipedal locomotion can free upper limbs for manipulation tasks. The ability to perform two kinds of locomotion on one robot can bring excellent versatility for legged robots. In this work, we proposed an approach for a quadruped robot to learn both bipedal and quadrupedal locomotion via reinforcement learning (RL).

Submitted to IROS2025

Link https://youtu.be/v-9BWRUbQa0

LANGUAGE SKILLS

Mother tongue(s): **CHINESE**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B1	C1	B1	B1	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Coding

C/C++ | Python | MATLAB | HTML

Robot Learning

PyTorch | IsaacGym | Gym

Embedded Systems

STM32 | ROS(robot operating system) | Linux | Basic PCB Design

HONOURS AND AWARDS

05/06/2024

Outstanding Graduate of Beijing – Beijing Municipal Commission of Educa tion

Link https://lupinjia.github.io/post/20240703/

05/06/2024

Outstanding Graduate of Beijing Institute of Technology – BeijingInstitute of Technology

Link https://lupinjia.github.io/post/20240703/

SOCIAL AND POLITICAL ACTIVITIES

01/01/2022 – 15/03/2022 Beijing

OBS internship in Olympic Winter Games Beijing 2022

I participated in the organization of Olympic Winter Games Beijing 2022 as an intern of OBS(Olympic Broadcasting Services). It's a wonderful experience with professionals from all over the world!

HOBBIES AND INTERESTS

Distance Running

Since 2020 summer, I have been gradually developing the habit of running, then pushing my speed to next levels. **After 4 years of running, I have successfully lost about 25Kg in weight.**

Link https://lupinjia.github.io/post/20231218/