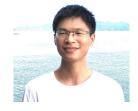
JINXIN LIU

DEEP REINFORCEMENT LEARNING

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EDUCATION 教育

Zhejiang University, Westlake University 2019.09 - 2024.06 Ph.D., Computer Science Hangzhou, China ★ Zhejiang University & Westlake University Joint Ph.D. Program ★ Advisor: Prof. Donglin Wang (国家科技创新 2030 重大项目, 首席科学家) **Chongqing University of Posts and Telecommunications** 2015.09 - 2019.06 B.Eng., Communications Engineering Chongqing, China ★ Cumulative GPA: 3.8/4.0 Rank: 1/42 (for four consecutive years) RESEARCH INTERESTS 研究经历

- ★ Deep Reinforcement Learning (RL): focusing on general and ready-to-be-deployed RL algorithms, i.e., imitation learning, reward-free RL, unsupervised RL (learning skills), and RL in real-world tasks (games).
- ★ Planning and Inference: offline RL, offline-to-online RL, embodied agent, and design from data.
- ★ Distribution Shift: RL dynamics/embodyment adaptation, multi-goal RL, sim2real, and sample-efficient RL.

SELECTED PREPRINTS 最新工作		
[1] Jinxin L, Li H, Yachen K, Zifeng Z, Donglin W, and Huazhe X.	[Under review]	
CEIL: Generalized Contextual Imitation Learning. PDF		
[2] Jinxin L, Hongyin Z, Zifeng Z, Yachen K, Donglin W, and Bin W.	[Under review]	
Design from Policies: Conservative Test-Time Adaptation for Offline Policy Optimization. PDF		
[3] Jinxin L, Ziqi Z, Zhenyu W, Zifeng Z, Yachen K, Sibo G, and Donglin W.	[Under review]	
Beyond OOD State Actions: Supported Cross-Domain Offline Reinforcement Learning. PDF		
[4] Jinxin L , Lipeng Z, Li H, and Donglin W.	[Under review]	
CLUE: Calibrated Latent Guidance for Offline Reinforcement Learning. PDF		
SELECTED PUBLICATIONS 部分文章		
[1] Jinxin L , Hongyin Z, and Donglin W.	[ICLR, 2022]	
DARA: Dynamics-Aware Reward Augmentation in Offline Reinforcement Learning. PDF		
[2] Jinxin L, Donglin W, Qiangxing T, and Zhengyu C.	[AAAI, 2022]	
Learn Goal-Conditioned Policy with Intrinsic Motivation for Deep Reinforcement Learning	. PDF	

DARA: Dynamics-Aware Reward Augmentation in Offline Reinforcement Learning. PDF		
[2] Jinxin L, Donglin W, Qiangxing T, and Zhengyu C.	[AAAI, 2022]	
Learn Goal-Conditioned Policy with Intrinsic Motivation for Deep Reinforcement Learning. PDF		
[3] Jinxin L, Hao S, Donglin W, Yachen K, and Qiangxing T.	[NeurIPS, 2021]	
Unsupervised Domain Adaptation with Dynamics-Aware Rewards in Reinforcement Learning. PDF		
[4] Zifeng Z, Kun L, <u>Jinxin L</u> , Donglin W, and Yilang G.	[ICLR, 2023]	
Behavior Proximal Policy Optimization. PDF		
[5] Yao L, <u>Jinxin L</u> , Zhentao T, Bin W, Jianye H, and Ping L.	[ICML, 2023]	
ChiPFormer: Transferable Chip Placement via Offline Decision Transformer. PDF		
[6] Yachen K, Diyuan S, <u>Jinxin L</u> , Li H, and Donglin W.	[ICML, 2023]	
Beyond Reward: Offline Preference-Guided Policy Optimization. PDF		
[7] Qiangxing T, Guanchu W, <u>Jinxin L</u> , Donglin W, and Yachen K.	[IJCAI, 2020]	

[8] Qiangxing T, **Jinxin** L, Donglin W, and Ao T. [CIKM, 2019] Time Series Prediction with Interpretable Data Reconstruction. PDF

Independent Skill Transfer for Deep Reinforcement Learning. PDF

INTERNSHIP EXPERIENCE 实习经历

★ Research Intern (2022.06 - 2022.10)

Noah's Ark Lab, Huawei

Finished with two papers on [1] chip placement tasks and [2] standard offline reinforcement learning tasks:

- [1] We proposed ChiPFormer that can exploit offline placement designs to learn transferable policies, promote effective finetuning for unseen chip circuits, and *reduce the placement runtime from hours to minutes*. PDF
- [2] We proposed Design fROm Policies that decouples the iterative bi-level offline RL from the offline training phase, forming a non-iterative bi-level paradigm and avoiding the iterative error propagation over two levels. PDF

★ Visiting Student (2018.10 - 2019.05)

Westlake University

Early-stage research training: finished with two papers (1st author) on time series prediction: [PDF] & [PDF].

ACADEMIC SERVICES 学术

★ Talks

- [1] Beyond Design from Data: Design from Policies is All You Need
- Ali Cloud, Alibaba

[2] Diffusion-Guided Diversity for Offline RL

Noah's Ark Lab, Huawei

- [3] Control as Inference: A General Review
- Second Research Institute of CASIC Westlake Robot Learning Symposium
- [4] Unsupervised Reinforcement Learning for Skill Discovery [5] Hi, Robot: Training a Versatile Robot from Scratch
- Talk to the Future, Westlake University
- [6] Time Series Prediction with Interpretable Data Reconstruction
- Zhejiang University

★ Teaching

[1] Deep Reinforcement Learning

Head TA in Fall 2021 and Spring 2023

★ Conference Reviewer

ICML, ICLR, NeurIPS, IJCAI, AAAI, KDD, and IROS.

Academic Services

RESEARCH PROJECT 研究课题

★ Government Sponsored Research

[1] NSFC General Program (Deep RL on real quadruped robot)

Grant No. 62176215

- [2] National Science and Technology Innovation 2030 Major Project
- Grant No. 2022ZD0208800
- [3] Development of the Blind-Guiding Quadruped Robot System
- Hangzhou 2022 Asian Games

- ★ Company Sponsored Research
- [1] Machine Learning and Robot Behavioral Learning

Bright Dream Robotics, Guangdong

[2] Quadruped Robot Platform on Farmland Protection

Westlake Uni.-Muyuan Joint Research Inst.

[3] Development of Low Cost Navigation Equipment

Westlake Uni.-Muyuan Joint Research Inst.

Responsible for Core Members

- o RL theory: research on RL sample efficiency, domain adaptation, and sim2real issues.
- o Real-world robot deployment: Deploying RL algorithms on a robotic arm and a quadruped robot.

SELECTED AWARDS & HONORS 荣誉奖励

Outstanding Student (<10%)	2022
Su-Wu Scholarship (<5%)	2021
Best Poster Award at WISE 2021 (<5%)	2021
The only Grand Prize at Electronic Design Innovation Challenge (<1%)	2018
Advanced Individuals of Scientific and Technological Innovation (<5%)	2018
Second Prize of National Mobile Internet Application Development Competition (<10%)	2018
National Scholarship (<5%)	2017
First Prize of China Undergraduate Mathematical Contest in Modeling (Chongqing; <5%)	2017
National Encouragement Scholarship (<10%)	2016