

ZINIU LI

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EDUCATION

The Chinese University of Hong Kong, Shenzhen, Shenzhen, China August 2020 - Present
Ph.D., School of Data Science.
Advisor: Zhi-Quan (Tom) Luo.

Xi'an Jiaotong University, Xi'an, China August 2015 - June 2019
B.E., School of Electrical Engineering.
Advisor: Zhiyuan Liu.

RESEARCH INTERESTS

Reinforcement learning, optimization and learning theory.

WORK EXPERIENCE

Cardinal Operations, Shanghai, China June 2020 - August 2020
Software Engineer (Intern)

- Contributed the main code of price optimization and business analysis for Carlsberg's products.

Nanjing University, Nanjing, China July 2019 - June 2020
Research Assistant, Advisor: Yang Yu

- Conducted theoretical studies towards a deep understanding of generative adversarial imitation learning and model-based reinforcement learning approaches.
- Developed efficient exploration strategies for deep reinforcement learning algorithms.

Tianrang Technology Inc., Hangzhou, China December 2018 - February 2019
Research Intern, Advisor: Zhenhui (Jessie) Li

- Developed simulation and experiment studies to intelligently control traffic lights with multi-agent reinforcement learning.

MANUSCRIPTS

* indicates equal contribution.

- Ziniu Li, Yingru Li, Hao Liang, Tong Zhang. Efficient Exploration by HyperDQN in Deep Reinforcement Learning. *In Reinforcement Learning for Real Life Workshop @ ICML*, 2021.
- Tian Xu*, **Ziniu Li***, Yang Yu. Nearly Minimax Optimal Adversarial Imitation Learning with Known and Unknown Transitions. *arXiv*, 2106.10424, 2021.
- Tian Xu, **Ziniu Li**, Yang Yu. On Value Discrepancy of Imitation Learning. *arXiv*, 1911.07027, 2019.

PUBLICATIONS

* indicates equal contribution.

- Tian Xu, **Ziniu Li**, Yang Yu. Error Bounds of Imitating Policies and Environments for Reinforcement Learning. *To appear in IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2021.
- Tian Xu, **Ziniu Li**, Yang Yu. Error Bounds of Imitating Policies and Environments. *In Advances in Neural Information Process System 33 (NeurIPS)*, 2020.
- **Ziniu Li***, Xiong-Hui Chen*. Efficient Exploration By Novelty-Pursuit. *In Proceedings of the 2nd International Conference on Distributed Artificial Intelligence (DAI)*, 2020.
- Fei-yu Liu, **Ziniu Li**, Chao Qian. Self-Guided Evolution Strategies with Historical Estimated Gradients. *In Proceedings of the 29th International Conference on Joint Artificial Intelligence (IJCAI)*, 2020.
- Xinjian Huang, **Ziniu Li**, Zhiyuan Liu, Bin Xiang, Yingsan Geng, Jianhua Wang. Solving The Inverse Design Problem of Electrical Fuse with Machine Learning. *IEEE Access*, 8 (2020): 74137-74144, 2020.

PROJECTS

RLX - Reinforcement Learning Algorithm Codebase March 2020

Implemented comprehensive cutting-edge deep reinforcement learning algorithms using TensorFlow with easy and convenient interfaces.

Face Recognition System on NVIDIA TX2 June 2018

Developed a facial recognition system capable of detecting strangers in real-time and displaying detection information on the NVIDIA TX2 (Linux platform).

SERVICE

- Organizers: Reinforcement Learning Weekly Seminar, Deep Learning Seminar at CUHKSZ.
- Program commit member: DAI'20.
- Journal reviewer: Frontiers of Computer Science.

AWARDS

- Best paper presentation award at the doctoral and postdoctoral forum of Shenzhen Research Institute of Big Data (SRIBD) in 2021.
- Honor Student of Xi'an Jiaotong University in 2017.
- Second Prize of The National Electrical Math Modeling Competition in 2017.
- Second Prize of Chinese Mathematics Competition in 2016.