

Qiwen Cui

Paul G. Allen School of Computer Science & Engineering

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RESEARCH INTERESTS

Reinforcement Learning, Game Theory

EDUCATION

University of Washington, Seattle

Sep. 2021 - Present

- Ph.D. student in Computer Science & Engineering
- Advisor: Simon Shao lei Du

Peking University

Sep. 2017 - July. 2021

- B.S. in Statistics
- Advisor: Zaiwen Wen

CONFERENCE PUBLICATIONS

* denotes equal contribution or alphabetical ordering

1. Haozhe Jiang, **Qiwen Cui**, Zhihan Xiong, Maryam Fazel, Simon S. Du

A Black-box Approach for Non-stationary Multi-agent Reinforcement Learning

In International Conference on Learning Representations (ICLR) 2024

2. Zhaoyi Zhou, Chuning Zhu, Runlong Zhou, **Qiwen Cui**, Abhishek Gupta, Simon S. Du

Free from Bellman Completeness: Trajectory Stitching via Model-based Return-conditioned Supervised Learning

In International Conference on Learning Representations (ICLR) 2024

3. **Qiwen Cui**, Kaiqing Zhang, Simon S. Du

Breaking the Curse of Multiagents in a Large State Space: RL in Markov Games with Independent Linear Function Approximation

In 36th Annual Conference on Learning Theory (COLT) 2023

4. Haozhe Jiang*, **Qiwen Cui***, Zhihan Xiong, Maryam Fazel, Simon S. Du

Offline Congestion Games: How Feedback Type Affects Data Coverage Requirement

In International Conference on Learning Representations (ICLR) 2023

5. **Qiwen Cui**, Simon S. Du

Provably Efficient Offline Multi-agent Reinforcement Learning via Strategy-wise Bonus

In Conference on Neural Information Processing Systems (NeurIPS) 2022

6. **Qiwen Cui**, Simon S. Du

When is Offline Two-Player Zero-Sum Markov Game Solvable?

In Conference on Neural Information Processing Systems (NeurIPS) 2022

7. **Qiwen Cui***, Zhihan Xiong*, Maryam Fazel, Simon S. Du

Learning in Congestion Games with Bandit Feedback

In Conference on Neural Information Processing Systems (NeurIPS) 2022

8. Zhihan Xiong*, Ruoqi Shen*, **Qiwen Cui***, Maryam Fazel, Simon S. Du

Near-Optimal Randomized Exploration for Tabular MDP

In Conference on Neural Information Processing Systems (NeurIPS) 2022

9. Xinqi Wang, **Qiwen Cui**, Simon S. Du

On Gap-dependent Bounds for Offline Reinforcement Learning

In Conference on Neural Information Processing Systems (NeurIPS) 2022

10. Haque Ishfaq*, **Qiwen Cui***, Viet Nguyen, Alex Ayoub, Zhuoran Yang, Zhaoran Wang, Doina Precup, Lin F. Yang

Randomized Exploration for Reinforcement Learning with General Value Function Approximation

In International Conference on Machine Learning (ICML) 2021

11. **Qiwen Cui**, Lin F. Yang

Minimax sample complexity for turn-based stochastic game

In Uncertainty in Artificial Intelligence (UAI) 2021

12. **Qiwen Cui**, Lin F. Yang

Is Plug-in Solver Sample-Efficient for Feature-based Reinforcement Learning?

In Conference on Neural Information Processing Systems (NeurIPS) 2020

JOURNAL PUBLICATIONS

1. Minghan Yang, Dong Xu, **Qiwen Cui**, Zaiwen Wen, Pengxiang Xu

A Multi-Step Matrix-Product Natural Gradient Method for Deep Learning

IEEE Transactions on Pattern Analysis and Machine Intelligence 2022

2. **Qiwen Cui**, Qingxiao Chen, Pufan Liu, Debin Liu, Zaiwen Wen
Clinical decision support model for tooth extraction therapy derived from electronic dental records
In The Journal of Prosthetic Dentistry 2021

PREPRINTS

AWARDS/HONORS

NeurIPS Travel Awards 2022

Paul G. Allen First-Year Graduate Student Fellowship

Elite Undergraduate Training Program of Applied Mathematics (top 15%)

1st Prize in Mathematics Competition of Chinese College Student

1st Prize in National High School Mathematics Competition

PROFESSIONAL ACTIVITIES

Paper Reviewer: NeurIPS 2022, ICML 2022, NeurIPS 2021, ICML 2021, UAI2021

UW CSE Ph.D. Admission Reviewer 2021

CS Ed Week Open House for Washington K-12 Students: 2022/2023