Qiwen Cui

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RESEARCH INTERESTS

Reinforcement Learning Theory, Algorithmic Game Theory

EDUCATION

University of Washington, Seattle **Sep. 2021 - Present**

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

Peking University **Sep. 2017 - July. 2021**

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

CONFERENCE PUBLICATIONS

* denotes equal contribution or alphabetical ordering

1. **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

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

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

   In Conference on Neural Information Processing Systems (NeurIPS) 2022

3. **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

4. 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

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

On Gap-dependent Bounds for Offline Reinforcement Learning

In Conference on Neural Information Processing Systems (NeurIPS) 2022

6. 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

7. **Qiwen Cui**, Lin F. Yang
   Minimax sample complexity for turn-based stochastic game
   In Uncertainty in Artificial Intelligence (UAI) 2021

8. **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

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