Xuyang Chen

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AREAS OF RESEARCH

- Reinforcement Learning
- Learning Theory
- Multi-agent Reinforcement Learning

EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE
Postdoctoral Research Fellow (expected) Jul. 2025 - Jul.2026(Expected)

NATIONAL UNIVERSITY OF SINGAPORE Aug. 2021 - Jul.2025
Doctor of Philosophy in Electrical and Computer Engineering

- Academics: Overall GPA: 4.6/5.0
- Supervisor: Assistant Professor Lin Zhao

BEIHANG UNIVERSITY, CHINA Sept. 2015 - Jul. 2019
Bachelor of Science in Mathematics and Applied Mathematics ***(Honor college)***

- Academics: Overall GPA: 3.60/4.00, Ranking 2/17
- Honors and Awards: Hua Luogeng Scholarship (2016,2017)

RESEARCH CONTRIBUTIONS

- **Chen, X.**, Duan, J., Liang, Y., and Zhao, L. Global convergence of two-timescale actor-critic for solving linear quadratic regulator. In Proceedings of the AAAI Conference on Artificial Intelligence, volume 37, pp. 7087–7095, 2023. (**AAAI23**)
- **Chen, X.** and Zhao, L. Finite-time analysis of single-timescale actor-critic. Advances in Neural Information Processing Systems, 36, 2024. (**NeurIPS23**)
- **Chen, X.**, Duan, J., and Zhao, L. Global optimality of single-timescale actor-critic under continuous state-action space: a study on linear quadratic regulator. In Proceedings of the Thirty-Third International Joint Conference on Artificial Intelligence, pp. 3816 – 3824, 2024. (**IJCAI24**)
- **Chen, X.** and Zhao, L. On the Convergence of Continuous Single-timescale Actor-critic. In International Conference on Machine Learning. PMLR, 2025. (**ICML25**)
- **Chen, X.**, Zhang, F., Wang, G., and Zhao, L. Finite-time Analysis of Actor-critic Mthods with Deep Neural Network Approximation. (**ICLR26**)
- **Chen, X.**, Wang, G., Yan, K., and Zhao, L. Vipo: Value function inconsistency penalized offline reinforcement learning. arXiv preprint arXiv:2504.11944, 2025a. (**Under Review**)
- **Chen, X.**, Yan, K., and Zhao, L. Taming ood actions for offline reinforcement learning: An advantage-based approach. arXiv preprint arXiv:2505.05126, 2025b. (**Under Review**)