Zaiyan Xu

Contact Information

Research Assistant
ECEN, Texas A&M University

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Research Interests

Reinforcement learning, multi-armed bandits

Education

Texas A&M University, College Station, TX — Aug. 2020 - Present
Ph.D. in Electrical Engineering
Advisor: Prof. Dileep Kalathil

University of Illinois at Urbana-Champaign, IL — Aug. 2015 - Jul. 2020
B.S. in Statistics & Computer Science and Actuarial Science
Cum Laude, Highest Distinction in CS and Statistics, High Distinction in Actuarial Science

Honors and Achievements

- Dept. of Electrical and Computer Engineering Graduate Merit Fellowship, TAMU, 2020
- Willis Towers Watson Actuarial Science Scholarship, Dept. of Mathematics, UIUC, 2018

Work Experience

Mitsubishi Electric Research Laboratories, Cambridge, MA — May. 2023 - Aug 2023
Research Intern (Host: Dr. Mouhacine Benosman)
Developing safe and distributionally robust RL algorithms and analyzing their statistical efficiency.

National Center for Supercomputing Application, Champaign, IL — Jun. 2019 - May 2020
Undergraduate Researcher (NCSA SPIN Program)
Worked on speech recognition and auto-captioning with a focus on engineering lectures. Developed several wrappers for CMU Sphinx engine and streamlined model training process by automating audio slicing, caption partitioning.

Publications

1. Zaiyan Xu*, Kishan Panaganti*, Dileep Kalathil. "Improved Sample Complexity Bounds For Distributionally Robust Reinforcement Learning", accepted to *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2023.
2. Kishan Panaganti, Zaiyan Xu, Dileep Kalathil, Mohammad Ghavamzadeh. "Robust Reinforcement Learning Using Offline Data", accepted to *Conference on Neural Information Processing Systems (NeurIPS)*, 2022.

(* denotes equal contribution)

Relevant Coursework

Introduction to Classical Analysis (MATH 615) — Analysis for Applications I (MATH 641)
Probability for statistics (STAT 614) — Applied Probability (MATH 619)
Reinforcement Learning (ECEN 689) — High Dimensional Probability (MATH 689)
Applied Convex Optimization (ECEN 629) — Stochastic Systems (ECEN 755)
Real Variables I (MATH 607) — Advanced Stochastic Processes (STAT 621)
Advanced Optimization Techniques and Analysis (ECEN 689)

Professional Services

Conference reviewer: NeurIPS (2023), ICML (2023), AISTATS (2023), American Control Conference (2023), IEEE Conference on Decision and Control (2023), L4DC (2023)

Skills

Languages: Python, C, C++, Java, R, Bash, Assembly, SQL, LaTeX
Platforms: PyTorch, OpenAI Gym

References

Prof. Dileep Kalathil
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