

Zhiyu Zhang

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RESEARCH INTEREST

Adaptive online learning, with applications in system control and robotics. The goal is to design theoretically sound and practically useful sequential decision making algorithms that Bayes-optimally exploit offline knowledge, such as domain structures, physical models and deep learning.

EMPLOYMENT

Harvard University <i>Postdoctoral Fellow</i>	09/2023 – Present <i>Advisor: Heng Yang</i>
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EDUCATION

Boston University <i>PhD, Systems Engineering</i>	09/2018 – 08/2023 <i>Advisor: Ioannis Paschalidis, Ashok Cutkosky</i>
Tsinghua University <i>BEng, Mechanical Engineering</i>	09/2014 – 06/2018
Delft University of Technology <i>Exchange Student, Control Engineering</i>	09/2016 – 02/2017

PUBLICATION

Improving Adaptive Online Learning Using Refined Discretization <i>Zhiyu Zhang, Heng Yang, Ashok Cutkosky, Ioannis Paschalidis</i>	preprint
Unconstrained Dynamic Regret via Sparse Coding <i>Zhiyu Zhang, Ashok Cutkosky, Ioannis Paschalidis</i>	NeurIPS'23
Optimal Comparator Adaptive Online Learning with Switching Cost <i>Zhiyu Zhang, Ashok Cutkosky, Ioannis Paschalidis</i>	NeurIPS'22
PDE-Based Optimal Strategy for Unconstrained Online Learning <i>Zhiyu Zhang, Ashok Cutkosky, Ioannis Paschalidis</i>	ICML'22
Adversarial Tracking Control via Strongly Adaptive Online Learning with Memory <i>Zhiyu Zhang, Ashok Cutkosky, Ioannis Paschalidis</i>	AISTATS'22
Provable Hierarchical Imitation Learning via EM <i>Zhiyu Zhang, Ioannis Paschalidis</i>	AISTATS'21

AWARD

NeurIPS Scholar (Travel Award)	2023
Multiple Top Reviewer Awards (~10%) <i>AISTATS'22, ICML'22, NeurIPS'22 and '23</i>	
Dean's Fellowship <i>College of Engineering, Boston University</i>	2018 – 2019
Scholarship for Distinction in Academics <i>Tsinghua University</i>	2014 – 2017
Scholarship for Outstanding Exchange Students <i>China Scholarship Council</i>	2016

SERVICE

Conference reviewer: AISTATS 2021-2024 (Artificial Intelligence and Statistics), ICML 2022-2023 (International Conference on Machine Learning), NeurIPS 2022-2023 (Conference on Neural Information Processing Systems), ALT 2023 (International Conference on Algorithmic Learning Theory).

Subreviewer: NeurIPS 2020, L4DC 2020 (Learning for Dynamics & Control Conference).

Journal reviewer: IEEE Transactions on Robotics, Journal of Machine Learning Research, Foundations and Trends in Machine Learning.

RESEARCH TALK

Prof. Na Li's group, Harvard University	10/2023
SIAM Student Chapter, Boston University	10/2023
Prof. Chuchu Fan's group, MIT	02/2023
CISE Graduate Student Workshop, Boston University	01/2023
Prof. Christos Cassandras' group, Boston University	12/2021

TEACHING AND MENTORING

Teaching Assistant	2020 – 2021
<i>Boston University</i>	
<ul style="list-style-type: none">• EK 381: Probability, Statistics, and Data Science for Engineers• ME 366: Probability and Statistics for Mechanical Engineers• ME 404: Dynamics and Control of Mechanical Systems	
BU RISE program mentor	Summer 2019
<i>Boston University</i>	
<ul style="list-style-type: none">• Summer research program for high school students.	