

YAN DAI

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🏠 diamond-duke.github.io

EDUCATION

INSTITUTE FOR INTERDISCIPLINARY INFORMATION SCIENCES (IIIS),
Tsinghua University, Beijing, China Sept. 2020 – Present
Computer Science and Technology (Special Pilot Class in CS, a.k.a. Yao Class).
GPA: 3.99/4.00; Selected course grades listed below.

EXPERIENCE

Paul G. Allen School, UNIVERSITY OF WASHINGTON (Seattle, WA, USA) Summer, 2023
Visiting student, hosted by Prof. SIMON S. DU.

LIDS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY (Cambridge, MA, USA) Spring, 2023
Visiting student, hosted by Prof. SUVRIT SRA.

Thomas Lord Department, UNIVERSITY OF SOUTHERN CALIFORNIA Spring – Fall, 2022
Remote visitor, advised by Prof. HAIPENG LUO.

Paul G. Allen School, UNIVERSITY OF WASHINGTON Winter, 2022
Remote visitor, advised by Prof. SIMON S. DU.

IIIS, TSINGHUA UNIVERSITY (Beijing, China) Summer – Fall, 2021
Research assistant, hosted by Prof. LONGBO HUANG.

PUBLICATIONS

(* stands for equal contribution. Listed in reverse chronological order.)

Manuscripts

- [7] [YAN DAI](#), QIWEN CUI, and SIMON S. DU. “Optimal Rates for Markov Games with Independent Linear Function Approximation.” *In submission*.

Conference Publications

- [6] (**NeurIPS 2023**) [YAN DAI](#)^{*}, KWANGJUN AHN^{*}, and SUVRIT SRA. “The Crucial Role of Normalization in Sharpness-Aware Minimization.” Accepted to *the 37th Conference on Neural Information Processing Systems (NeurIPS)*, 2023. [PDF]
- [5] (**ICML 2023**) [YAN DAI](#), HAIPENG LUO, CHEN-YU WEI, and JULIAN ZIMMERT. “Refined Regret for Adversarial MDPs with Linear Function Approximation.” In *Proceedings of the 40th International Conference on Machine Learning (ICML)*, PMLR 202:6726-6759, 2023. [PDF] [Proceeding]
- [4] (**ICML 2023**) JIATAI HUANG^{*}, [YAN DAI](#)^{*}, and LONGBO HUANG. “Banker Online Mirror Descent: A Universal Approach for Delayed Online Bandit Learning.” In *Proceedings of the 40th International Conference on Machine Learning (ICML)*, PMLR 202:13814-13844, 2023. [PDF] [Proceeding]
- [3] (**ICLR 2023**) [YAN DAI](#), RUOSONG WANG, and SIMON S. DU. “Variance-Aware Sparse Linear Bandits.” In *the Eleventh International Conference on Learning Representations (ICLR)*, 2023. [PDF] [OpenReview]
- [2] (**NeurIPS 2022**) [YAN DAI](#), HAIPENG LUO, and LIYU CHEN. “Follow-the-Perturbed-Leader for Adversarial Markov Decision Processes with Bandit Feedback.” In *Advances in Neural Information Processing Systems 35 (NeurIPS)*, 2022. [PDF] [OpenReview] [Proceeding]
- [1] (**ICML 2022**) JIATAI HUANG^{*}, [YAN DAI](#)^{*}, and LONGBO HUANG. “Adaptive Best-of-Both-Worlds Algorithm for Heavy-Tailed Multi-Armed Bandits.” In *Proceedings of the 39th International Conference on Machine Learning (ICML)*, PMLR 162:9173-9200, 2022. [PDF] [Proceeding]

SELECTED AWARDS

Scholarship

- Yao Award, Gold Medal (*top scholarship in IIIS; 1 student institute-wide*), IIIS, Tsinghua University. 2023
- National Scholarship (*top scholarship in China; 0.2% domestically*), Ministry of Education. 2022
- SenseTime AI Scholarship (*30 undergrads domestically*), SenseTime. 2022
- 12-9 Scholarship (*top scholarship in Tsinghua; 1 student per department*), Tsinghua University. 2021

Competitive Programming

- Gold Medal (*1st place with perfect score*), Asia-Pacific Informatics Olympiad (APIO). 2019
- Gold Medal (*5th place*), Chinese National Olympiad in Informatics (NOI). 2018

Miscellaneous

- 2nd Place, National Collegiate Water Polo Championships. 2021
- 1st Place, Tsinghua Swimming Competition (Men's 100m Butterfly). 2022
- 1st Place, MIT Intramurals League (Water Polo). 2023

TALKS

- [5] "Refined Regret for Adversarial MDPs with Linear Function Approximation." [PDF]
@ *International Conference on Machine Learning (ICML)*, Hawaii Convention Center, Jul 2023.
- [4] "Banker Online Mirror Descent: A Universal Approach for Delayed Online Bandit Learning." [PDF]
@ *International Conference on Machine Learning (ICML)*, Hawaii Convention Center, Jul 2023.
- [3] "Variance-Aware Sparse Linear Bandits." [PDF]
@ *International Conference on Learning Representations (ICLR)*, Kigali Convention Centre, May 2023.
@ *FAI-Seminar*, Online, Apr 2023.
@ *Yao Class Seminar*, Tsinghua University, Mar 2023.
- [2] "Follow-the-Perturbed-Leader for Adversarial Markov Decision Processes with Bandit Feedback." [PDF]
@ *Conference on Neural Information Processing Systems (NeurIPS)*, Online, Dec 2022.
- [1] "Adaptive Best-of-Both-Worlds Algorithm for Heavy-Tailed Multi-Armed Bandits." [PDF]
@ *SparkDay (in Chinese)*, Tsinghua University, May 2022.

SELECTED COURSE GRADES

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|-------------------------------|----|------------------------------------|----|
| • Game Theory | A+ | • Causal and Statistical Learning | A+ |
| • Theory of Computation | A+ | • Linear Algebra | A+ |
| • AI+X Computing Acceleration | A+ | • Introduction to Computer Science | A+ |
| • Computer Architecture | A+ | • Advanced Computer Graphics | A+ |

ACADEMIC SERVICES

Conference Reviewing: AISTATS 2022, NeurIPS 2022, AISTATS 2023, ALT 2023, ICML 2023, NeurIPS 2023.