

# YAN DAI

✉ yan-dai20@mails.tsinghua.edu.cn

🏠 diamond-duke.github.io

## EDUCATION

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INSTITUTE FOR INTERDISCIPLINARY INFORMATION SCIENCES,  
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

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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

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

### Manuscripts

- [6] [YAN DAI\\*](#), KWANGJUN AHN\*, and SUVRIT SRA. “The Crucial Role of Normalization in Sharpness-Aware Minimization.” *In submission*. [PDF]

### Conference Publications

- [5] (ICML 2023) [YAN DAI](#), HAIPENG LUO, CHEN-YU WEI, and JULIAN ZIMMERT. “Refined Regret for Adversarial MDPs with Linear Function Approximation.” Accepted to *the 40th International Conference on Machine Learning (ICML)*, 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.” Accepted to *the 40th International Conference on Machine Learning (ICML)*, 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

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### Scholarship

- 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

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[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

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