

# YIHAN DU

duyh18@mails.tsinghua.edu.cn  $\diamond$  <https://yihandu.github.io>

## EDUCATION

---

### **Tsinghua University**

*September 2018 - June 2023 (expected)*

Institute for Interdisciplinary Information Sciences (headed by Prof. Andrew Chi-Chih Yao)

Ph.D. candidate in Computer Science

Advisor: Prof. Longbo Huang

Research interests: online learning (multi-armed bandit), reinforcement learning

### **Xiamen University**

*September 2014 - June 2018*

B.E. in Computer Science

Rank: 3/93

## VISIT & INTERNSHIP

---

### **Cornell University**

*September 2022 - Present*

Visiting Ph.D. student

Research topic: reinforcement learning

Supervisor: Prof. Wen Sun

### **Microsoft Research (MSR) Asia**

*January 2020 - May 2020*

Research intern

Research topic: combinatorial bandit

Supervisor: Dr. Wei Chen (IEEE Fellow, Director of MSR Asia Theory Center)

## PUBLICATIONS

---

**Yihan Du**, Wei Chen, “Branching Reinforcement Learning,” International Conference on Machine Learning (ICML), 2022.

**Yihan Du**, Siwei Wang, Zhixuan Fang, Longbo Huang, “Continuous Mean-Covariance Bandits,” Proceedings of the Conference on Neural Information Processing Systems (NeurIPS), 2021.

**Yihan Du**, Yuko Kuroki, Wei Chen, “Combinatorial Pure Exploration with Bottleneck Reward Function,” Proceedings of the Conference on Neural Information Processing Systems (NeurIPS), 2021.

**Yihan Du**, Siwei Wang, Longbo Huang, “A One-Size-Fits-All Solution to Conservative Bandit Problems,” Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2021.

**Yihan Du\***, Yuko Kuroki\*, Wei Chen, “Combinatorial Pure Exploration with Full-Bandit or Partial Linear Feedback,” Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2021 (\*equal contribution).

(\* $\alpha$ - $\beta$  ordering) Wei Chen, **Yihan Du**, Longbo Huang, Haoyu Zhao, “Combinatorial Pure Exploration for Dueling Bandit,” International Conference on Machine Learning (ICML), 2020.

**Yihan Du**, Siwei Wang and Longbo Huang, “Dueling Bandits: From Two-dueling to Multi-dueling,” Proceedings of the International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2020.

**Yihan Du**, Yan Yan, Si Chen and Yang Hua, “Object-adaptive LSTM network for Real-time Visual Tracking with Adversarial Data Augmentation,” Neurocomputing, 2019.

**Yihan Du**, Yan Yan, Si Chen, Yang Hua and Hanzi Wang, “Object-Adaptive LSTM Network for Visual Tracking,” International Conference on Pattern Recognition (ICPR), 2018.

## PREPRINTS

---

**Yihan Du**, Siwei Wang, Longbo Huang, “Risk-sensitive reinforcement learning: Iterated CVaR and the worst path,” arXiv preprint arXiv:2206.02678, 2022.

**Yihan Du**, Wei Chen, Yuko Kuroki, Longbo Huang, “Collaborative pure exploration in kernel bandit,” arXiv preprint arXiv:2110.15771, 2021.

## INVITED TALKS & PRESENTATIONS

---

### Invited Talks

“Optimal Experimental Design in Linear Bandit,” Bandit Algorithm Seminar, Yau Mathematical Sciences Center (YMSC), Tsinghua University *November 2022*

“Combinatorial Pure Exploration for Dueling Bandit,” China Computer Federation (CCF) Doctoral Forum in Theoretical Computer Science *June 2021*  
(Only 18 Ph.D. students in theoretical computer science are invited nationwide)

### Presentations

ICML 2022, NeurIPS 2021, AAAI 2021, ICML 2020, AAMAS 2020

## ACADEMIC SERVICE & ACTIVITIES

---

### Program Committee Member/Reviewer

Conference: ICLR 2022-2023, NeurIPS 2021-2022, ICML 2021-2022

Journal: Transactions on Machine Learning Research (TMLR)

### Teaching Assistant

Stochastic Network Optimization, graduate course (IIIS, Tsinghua University) *Spring 2021*

Introduction to Computer Science, undergraduate course (Yao Class, Tsinghua University) *Fall 2019*

### Social Activity

President of Graduate Union at IIIS, Tsinghua University *June 2020 - June 2021*

## AWARDS & SCHOLARSHIPS

---

China National Scholarship, by Ministry of Education of China *October 2022*

Toyota Scholarship, by Toyota and Tsinghua University *October 2021*

Huawei Academic Excellence Scholarship, by Huawei and Tsinghua University *October 2020*

Wuqing Talent Scholarship, by Wuqing District Government and Tsinghua University *October 2020*

Outstanding Graduate, by Xiamen University *June 2018*

Academic Excellence Scholarship, by Xiamen University *October 2017, 2015*

Tan Chong International Scholarship, by Tan Chong International Limited and Xiamen University *April 2016*

Dean’s List in School of Informatics, by Xiamen University *October 2016 - 2018*