

YU CHEN

🏠 <https://custyhs.github.io/>

✉️ chenyu23@mails.tsinghua.edu.cn

EDUCATION

Tsinghua University Institute for Interdisciplinary Information Sciences 2023 – 2028 (expected)
Ph.D. Candidate in Computer Science. Advisor: Prof. [Longbo Huang](#).

Tsinghua University Department of Mathematics 2019 – 2023
Bachelor of Science in Mathematics.

RESEARCH EXPERIENCES

Microsoft Research Asia - Theory Center Feb. 2024 – Aug. 2024
Research intern mentored by Dr. [Wei Chen](#).

RESEARCH INTERESTS

My research focuses on Artificial Intelligence for Decisions Making, aiming to develop efficient, robust, and safe theory and algorithms for sequential decision making and optimization.

SELECTED PUBLICATIONS

(* stands for equal contribution. Listed reverse chronologically.)

[ICML'26] Yu Chen, Yuhao Liu, Jiatai Huang, Yihan Du, and Longbo Huang. “Best-of-Both-Worlds for Heavy-Tailed Markov Decision Processes.”

[ICML'26] Ruishuo Chen, Yu Chen, Zhuoran Li, and Longbo Huang. “PowerFlow: Unlocking the Dual Nature of LLMs via Principled Distribution Matching.”

[ICML'26] Rui Hu, Yu Chen, and Longbo Huang. “Finite-time Convergence Analysis of Actor-Critic with Evolving Reward.”

[ICLR'26] Yuhao Liu, Yu Chen, Rui Hu, and Longbo Huang. “Finite-Time Convergence Analysis of ODE-based Generative Models for Stochastic Interpolants.”

[ICML'25] Yuhao Liu, Yu Chen, Rui Hu, and Longbo Huang. “Finite-Time Analysis of Discrete-Time Stochastic Interpolants.”

[ICLR'25] Yu Chen*, Jiatai Huang*, Yan Dai*, and Longbo Huang. “uniINF: Best-of-Both-Worlds Algorithm for Parameter-Free Heavy-Tailed MABs.” **Spotlight (Top 5%)**.

[ICML'24] Yu Chen*, Xiangcheng Zhang*, Siwei Wang, and Longbo Huang. “Provable Risk-Sensitive Distributional Reinforcement Learning with General Function Approximation.”

[ICML'24] Tonghe Zhang*, Yu Chen*, and Longbo Huang. “Provably Efficient Partially Observable Risk-Sensitive Reinforcement Learning with Hindsight Observation.”

[TON'24] Pihe Hu, Yu Chen, Ling Pan, Zhixuan Fang, Fu Xiao, and Longbo Huang. “Multi-User Delay-Constrained Scheduling With Deep Recurrent Reinforcement Learning.”

[ICLR'24] Yu Chen, Yihan Du, Pihe Hu, Siwei Wang, Desheng Wu, and Longbo Huang. “Provably Efficient Iterated CVaR Reinforcement Learning with Function Approximation and Human Feedback.”

[ICLR'23] Pihe Hu*, Yu Chen*, and Longbo Huang. “Towards Minimax Optimal Reward-free Reinforcement Learning in Linear MDPs.”

[MobiHoc'22] Pihe Hu, Ling Pan, Yu Chen, Zhixuan Fang, and Longbo Huang. “Effective Multi-user Delay-constrained Scheduling with Deep Recurrent Reinforcement Learning.”

[ICML'22] Pihe Hu, **Yu Chen**, and Longbo Huang. "Nearly Minimax Optimal Reinforcement Learning with Linear Function Approximation."

SELECTED HONORS AND AWARDS

Research Awards

- Spotlight (Top 5%), 13th International Conference on Learning Representations (ICLR), for "uniINF: Best-of-Both-Worlds Algorithm for Parameter-Free Heavy-Tailed MABs." 2025

Fellowship and Scholarship

- China National Scholarship, top scholarship in China for graduate students (2% domestically). Nov. 2024
- China National Scholarship, top scholarship in China for undergraduate students (2% domestically). Oct. 2022
- Xiao Qin Scholarship, recognition for the best student of each class (3 / 111) in Department of Mathematics, Tsinghua. Dec. 2022
- Tsinghua University Scholarship, recognition for academic and social work performance. Oct. 2020, Oct. 2021

Competitions

- First Prize (Beijing Area), Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM). Sep. 2020
- First Prize, Chinese Mathematical Olympiad in Provinces. Sep. 2018
- First Prize, Chinese Mathematical Olympiad in Provinces. Sep. 2017
- First Prize, National Olympiad in Informatics in Provinces. Nov. 2017

PROFESSIONAL SERVICES

Journal Reviewing. Expert Systems With Applications.

Conference Reviewing. NeurIPS, ICLR, ICML, AISTATS.

LEADERSHIP EXPERIENCE

Tsinghua Students' Association of Min Culture Aug. 2019 – Sep. 2023
President from Mar. 2021 to Sep. 2023.

Tsinghua Students' Club of Military Chess Oct. 2019 – Jun. 2023
Vice president from Jun. 2021 to Jun. 2023.