

## Education

### Tsinghua University

Sep 2020 – Present

Undergraduate, major in Computer Science and Technology (Yao Class)

Expected graduation: June 2024

GPA: 3.97/4.00

Selected coursework: Machine Learning, Theory of Computation, Game Theory

### University of Washington

Feb 2023 - Present

Visiting student at School of Computer Science and Engineering

Expected finishing time: August 2023

Advisor: Simon Shaolei Du

## Research Experience

### IIIS, Tsinghua University

June 2023 - Present

Advised by Jingzhao Zhang

- (Ongoing) Investigate parameter-free convex optimization in stochastic gradient setting.

### CSE, University of Washington

Feb 2023 - Present

Advised by Simon Shaolei Du

- Proposed theoretical explanations of decision transformer
- Discovered settings where decision transformer outperforms classical offline RL algorithms
- (Ongoing) Improve decision transformer to cope with issue of trajectory stitching

### CMS, Caltech (Remote)

Feb 2022 - Feb 2023

Advised by Adam Wierman

- Introduced a class of networked Markov potential games
- Designed a localized actor-critic algorithm
- Derived the *first* finite-sample bound for multi-agent competitive games that is independent of the number of agents

## Publications and Preprints

### Convergence Rates for Localized Actor-Critic in Networked Markov Potential Games

**Zhaoyi Zhou**, Zaiwei Chen, Yiheng Lin, and Adam Wierman

accepted by UAI 2023

## Selected Honors

- |   |                           |
|---|---------------------------|
| • Excellent Academic Scholarship              | Tsinghua University, 2022 |
| • Excellent Scientific Innovation Scholarship | Tsinghua University, 2022 |
| • Excellent Comprehensive Scholarship         | Tsinghua University, 2021 |

## Skills

### Programming Languages

C++, Python, Go, Verilog

### Mathematics

Calculus, Linear Algebra, Abstract Algebra, Probability Theory, Optimization.

### Computer Science

Machine Learning, Game Theory, Theoretical Computer Science, Quantum Computing