

ZIHAO LI

Princeton, NJ, USA

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Education

Princeton University

Ph.D in Electrical & Computer Engineering

Sep. 2022 – Present

Princeton, NJ, USA

Fudan University

B.S in Mathematics and Applied Mathematics, GPA: 3.81/4.00 (Rank 4/196)

Sep. 2018 – June. 2022

Shanghai, China

Relevant Coursework

Undergrad Courses: Advanced Algebra /Mathematical Analysis /Numerical Algebra/ Real Analysis/
Functional Analysis/ Convex Optimization/ Stochastic Process/ Stochastic Analysis/ Statistical Theory/
Theoretical Machine Learning / Approximation in Data Science/ Numerical Differential Equation/ Partial
Differential Equation/ Optimal Control

Graduate Courses: Statistical Theory/ Machine Learning Theory/ Stochastic Calculus/ First Order
Optimization/Statistical Methods in Data Science/High Dimensional Probability/Reinforcement Learning

Awards and Honors

- 1st Class Scholarship for Merit student, 2020 (Top 2 out of 196);
- KLA-Tencor Scholarship (For 4 undergraduate researchers in 4 departments);
- Junyuan Tang Scholarship (For 50 Shanghai students in Fudan University);

Publication and Manuscript

- Regularized DeepIV with Model Selection , **Zihao Li**, Hui Lan, Vasilis Syrgkanis, Mengdi Wang, Masatoshi Uehara, submitted to *Annual Conference on Learning Theory*.
- Theoretical Insights for Diffusion Guidance: A Case Study for Gaussian Mixture Models , Yuchen Wu, Minshuo Chen, Zihao Li, Mengdi Wang, Yuting Wei, submitted to *International Conference on Machine Learning*.
- Sample Complexity of Preference-Based Nonparametric Off-Policy Evaluation with Deep Networks, **Zihao Li**, Xiang Ji, Minshuo Chen, Mengdi Wang, *Artificial Intelligence and Statistics, 2024*.
- Reinforcement learning with Human Feedback: Learning Dynamic Choices via Pessimism, **Zihao Li**, Zhuoran Yang, Mengdi Wang.
- Provably Efficient Representation Learning with Tractable Planning in Low-Rank POMDP, Jiacheng Guo, **Zihao Li**, Huazheng Wang, Mengdi Wang, Zhuoran Yang, Xuezhou Zhang, Accepted in *Fortieth International Conference on Machine Learning, 2023*
- Double Duality: Variational Primal-Dual Policy Optimization for Constrained Reinforcement Learning , **Zihao Li**, Boyi Liu, Mengdi Wang, Zhaoran Wang, Zhuoran Yang. Accepted by *Journal of Machine Learning Research. To be appeared*.
- Fast Algorithms for Stackelberg Prediction Game with Least Squares Loss, Jiali Wang, He Chen, Rujun Jiang, Xudong Li, **Zihao Li**. Accepted in *Thirty-eighth International Conference on Machine Learning, 2021*.

Teaching Experiences

- **Introduction to Reinforcement Learning**, TA, Spring 2024, Princeton University
- **Calculus I**, TA, Fall 2021, Fudan University

Skills and Others

Programming: JAVA, Python (NumPy, Pandas, PyTorch), MATLAB, \LaTeX , R
Languages: Mandarin (native), English (fluent)