

# Ruicheng Ao

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## EDUCATION

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09/2019-07/2023	<b>School of Mathematical Sciences, Peking University</b> <b>B.S. in Mathematics</b> GPA: 3.85/4.00
09/2023-05/2028 Expected	<b>Institute for Data, Systems, and Society (IDSS) at MIT</b> <b>Ph.D in Social &amp; Engineering Systems</b> <b>Advisor: David Simchi-levi</b> GPA: 5.0/5.0

## PREPRINTS

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1. Ruicheng Ao , Hongyu Chen, David Simchi-levi, Feng Zhu, “Online Local False Discovery Rate Control: A Resource Allocation Approach”, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4723579](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4723579)
2. C Chen, R Chen, T Li, R Ao, Z Wen, “Monte carlo policy gradient method for binary optimization”, arXiv preprint arXiv:2307.00783

## PUBLICATIONS

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1. Ruicheng Ao , Shicong Cen, and Yuejie Chi, “Asynchronous Gradient Play in Zero-Sum Multi-agent Games”, International Conference on Learning Representations (ICLR), Kigali, Rwanda, May 2023.
2. Jiang Hu, Ruicheng Ao, Anthony Man-Cho So, Minghan Yang, Zaiwen Wen, “Riemannian Natural Gradient Methods”, SIAM Journal on Scientific Computing 46 (1), A204-A231.

## WORKING PAPER

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1. Ruicheng Ao, Hongyu Chen, and David Simchi-levi, “Active Experimentation with LLM Predictions”, working paper.
2. Ruicheng Ao, Hengyu Fu, and David Simchi-levi “Two-stage Online Reusable Resource Allocation: Reservation, Overbooking and Confirmation Call”, working paper.

## TEACHING

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1. 6.431x Probability - The Science of Uncertainty and Data (Fall 2024 TA)
2. 6.419x Data Analysis: Statistical Modeling and Computation in Applications (Summer 2024 TA)

## AWARDS

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2022	National Scholarship
2022	1st in S.T Yau College Student Mathematics Contest (applied math, team)
2022	Honorable Mention in the Alibaba Global Mathematics Competition
2021	2nd in S.T. Yau College Student Mathematics Contest

## SKILLS & ADDITIONAL EXPERIENCE

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Programming	Python, C/C++, R, MATLAB, Julia, html
Student Service	Member of Community Department, Student Union, School of Mathematical Sciences, Peking University