





# Tao Ma

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## CONTACT INFORMATION

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## EDUCATION

**London School of Economics and Political Science (LSE)** Sep 2021 – Jan 2026  
Ph.D. Candidate in Statistics (Data Science Group) London


**New York University (NYU) | Courant Institute** Sep 2016 – Aug 2018  
Master of Science in Mathematics New York  
GPA 3.81/4.00 (Top 5) | Passed the Ph.D. Written Qualification Exam

**Hong Kong Baptist University (HKBU)** Sep 2012 – Aug 2016  
Bachelor of Science in Statistics and Operations Research (Science Elite Program) Hong Kong  
GPA 3.87/4.00 (Rank 1/61 in the Math Department)


## RELEVANT COURSEWORK

Reinforcement Learning, Game Theory, Stochastic Analysis, Survival Analysis, Nonparametric Statistics, Time Series, Categorical Data, Numerical Methods, Linear Programming, Topology, Differential Equations, Real/Complex/Functional Analysis, Information Theory, Mathematical Foundations of Computing, Natural Language Processing with Deep Learning

## PUBLICATIONS AND PREPRINTS

Ma, T., Yang, X., & Szabó, Z. (2024). To Switch or not to Switch? Balanced Policy Switching in Offline Reinforcement Learning. arXiv preprint arXiv:2407.01837. 

Ma, T., & Yang, X. (2024). A Framework for Policy Evaluation Enhancement by Diffusion Models. Tiny Papers **ICLR**. (Invite to present) 

Ma, T., Zhu, J., Cai, H., Qi, Z., Chen, Y., Shi, C., & Laber, E. B. (2023+). Sequential Knockoffs for Variable Selection in Reinforcement Learning. arXiv preprint arXiv:2303.14281. (SEEK) 

## SELECTED ACHIEVEMENTS

- LSE Class Teacher Award 2022 – 2023
- LSE PhD Studentship (the highest honor for graduate students) 2021 – 2025
- Best Teaching Assistant Award (HKUST) 2019 – 2020
- HKSAR Government Scholarship (the highest honor for undergraduates in HK) 2013 – 2016
- Outstanding Student Award (7/4134, by The Baptist Convention of HK) 2015 – 2016
- Scholastic Award 2015 – 2016
- APEC Scholarship (by Asia Pacific Economic Cooperation) 2014 – 2016
- Best Debater prize at The World Mandarin Debating Championship, HK 2015 – 2016
- Summer Undergraduate Research Fellowship 2014 – 2015
- Mr. Li Men Jan Prize in Mathematics 2014 – 2015
- Department of Mathematics Outstanding Academic Performance Award 2013 – 2014
- Sir Tseng Chi Lu Scholarship 2013 – 2014
- President's Honour Roll 2012 – 2016

## SKILLS

Python, R, SAS, MATLAB,  $\LaTeX$ , HTML, CSS, JavaScript, Bash, PyTorch, Jupyter Notebook, VS Code, Linux, Git, Google Cloud Platform, local high-performance computing management

ACADEMIC SERVICE	<b>International Conference on AI and Statistics (AISTATS)</b> <i>Reviewer (main track submissions)</i>	Sep 2024 – Jan 2025
	<b>International Conference on Learning Representations (ICLR)</b> <i>Reviewer (main track submissions)</i>	Sep 2024 – Jan 2025
	<b>Neural Information Processing Systems (NeurIPS)</b> <i>Reviewer (main track submissions)</i>	Jun 2024 – Sep 2024
	<b>London School of Economics and Political Science</b> <i>Committee member</i>	London
	<ul style="list-style-type: none"> <li>• Department Review Representative</li> <li>• Department Teaching Committee</li> <li>• Department Moving Plan Committee</li> </ul>	2024 2023 – Present 2023 – Present
ACADEMIC EXPERIENCE	<b>London School of Economics and Political Science</b> Class Teacher	Sep 2021 – Present London
	<ul style="list-style-type: none"> <li>• <b>Undergraduate courses:</b> <ul style="list-style-type: none"> <li>◇ ST101 Programming for Data Science (Python) Numpy, Pandas, testing, object-oriented programming, functional programming</li> <li>◇ ST107 Quantitative Methods Introductory statistics for students in social science</li> <li>◇ ST102/109/110 Elementary Statistical Theory One-year rigorous course in probability and statistics</li> </ul> </li> <li>• <b>Graduate courses:</b> <ul style="list-style-type: none"> <li>◇ ST445 Managing &amp; Visualizing Data (Python) Pandas, BeautifulSoup, Sklearn, Jupyter Notebook</li> </ul> </li> </ul>	Sep 2022 – Present Jan 2022 – May 2022 Sep 2022 – Present Sep 2021 – Dec 2021
	<b>Hong Kong University of Science and Technology</b> Research Assistant	Oct 2018 – Nov 2019 Hong Kong
	<ul style="list-style-type: none"> <li>• Mathematical physics, partial differential equations and signal processing of robots.</li> </ul>	
	<b>New York University</b> Recitation Leader	Sep 2017 – Dec 2017 New York
	<ul style="list-style-type: none"> <li>• MATH-UA 211 Mathematics for Economics: calculus with economic theory.</li> </ul>	
INDUSTRIAL EXPERIENCE	<b>Bank of China</b> Internship – Corporate Banking and Financial Institute	Dec 2014 – Jan 2015 Hong Kong
OTHER PROFESSIONAL EXPERIENCE	<b>University Mandarin Debate Team</b> President, coach	Sep 2012 – Aug 2016 Hong Kong
	<ul style="list-style-type: none"> <li>• Organized weekly training sessions, managed administrative tasks, participated in international competitions and gave 3-round interviews to around 100 applicants each year.</li> </ul>	
	<b>Professional Swimming</b> Individual Medley (200 meters), Breaststroke (100 meters), Butterfly Stroke (100 meters)	2004 – 2009 Beijing
LANGUAGES	Mandarin (native), English (fluent), Cantonese (fluent)	
INTERESTS	Basketball, calligraphy and music	

GAMES

Poker, Mahjong, Pokémon, Mario, Kirby, Dragon Ball, NBA 2K, Asphalt, FIFA, Horizon 4, Zelda, GTA 5 and a lot of others