

Shang Liu

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EDUCATION

Ph.D. of Operations and Analytics

Business School, Imperial College London (ICL), London, UK.
Advisor: Prof. Xiaocheng Li

Sept. 2022 – Jun. 2026 (Expected)

Master of Research of Operations and Analytics (Distinction)

Business School, Imperial College London (ICL), London, UK.

Sept. 2021 – Jun. 2022

Bachelor of Mathematics

School of Mathematical Sciences, Peking University (PKU), Beijing, China.

Sept. 2016 – Jun. 2021

RESEARCH

Online Bin Packing with Known T

Shang Liu, Xiaocheng Li, *under Major Revision at Mathematics of Operations Research*, [arXiv](#)

Non-stationary Bandits with Knapsacks

Shang Liu, Jiashuo Jiang, Xiaocheng Li, *NeurIPS 2022*, [arXiv](#)

Maximum Optimality Margin: A Unified Approach for Contextual Linear Programming and Inverse Linear Programming

Chunlin Sun*, Shang Liu*, Xiaocheng Li, *ICML 2023*, [arXiv](#)

Distribution-Free Model-Agnostic Regression Calibration via Nonparametric Methods

Shang Liu*, Zhongze Cai*, Xiaocheng Li, *NeurIPS 2023*, [arXiv](#)

Understanding Uncertainty Sampling

Shang Liu, Xiaocheng Li, *submitted*, [arXiv](#)

When No-Rejection Learning is Consistent for Regression with Rejection

Xiaocheng Li, Shang Liu, Chunlin Sun, Hanzhao Wang, *AISTATS 2024*, [arXiv](#)

Towards Better Statistical Understanding of Watermarking LLMs

Zhongze Cai*, Shang Liu*, Hanzhao Wang*, Huaiyang Zhong, Xiaocheng Li, [arXiv](#)

Understanding the Training and Generalization of Pretrained Transformer for Sequential Decision Making

Hanzhao Wang*, Yu Pan*, Fupeng Sun, Shang Liu, Kalyan Talluri, Guanting Chen, Xiaocheng Li, [arXiv](#)

Towards Better Understanding of In-Context Learning Ability from In-Context Uncertainty Quantification

Shang Liu*, Zhongze Cai*, Guanting Chen, Xiaocheng Li, [arXiv](#)

*: equal contribution

PRIZES & AWARDS

Dean's List for Academic Excellence at Imperial College Business School, 2021/2022
Outstanding Graduate of Peking University, 2021
Wusi Scholarships at Peking University, 2016/2017, 2017/2018

SEVICE

Reviewer: NeurIPS 2024

TEACHING

TA: Machine Learning, Spring 2024, Imperial College London