

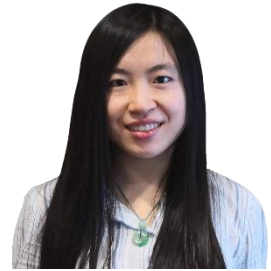
Zixin Zhong

Ph.D. Candidate

Department of Mathematics, National University of Singapore

✉ zixin.zhong@u.nus.edu

🏠 zixinzh.github.io/homepage



Research Interests

Machine learning (e.g., bandit problem)

Work Experience

Jun. 2021 to present	Research fellow, Department of Electrical and Computer Engineering National University of Singapore (NUS) · Supervisors: Prof. Vincent Y. F. Tan and Prof. Wang Chi Cheung
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Education

Aug. 2017 to present	Ph.D. candidate, Department of Mathematics National University of Singapore (NUS) · Supervisors: Prof. Vincent Y. F. Tan (Main) and Prof. Wang Chi Cheung
Aug. 2013 to Jun. 2017	B.S., School of Mathematics (Outstanding Graduate) Sun Yat-sen University (SYSU) , GPA: 4.1/5.0 · Thesis Advisor: Prof. Guocan Feng
Aug. 2015 to Dec. 2015	International student University of California, Berkeley (UCB)
Nov. 2014 to Jun. 2017	Yat-sen School (Including top 5% from School of Mathematics) Sun Yat-sen University (SYSU)

Journal Papers

- [Thompson Sampling Algorithms for Cascading Bandits \[Code\]](#)
Zixin Zhong, Wang Chi Cheung, and Vincent Y. F. Tan
Journal of Machine Learning Research (JMLR), Vol. 22, No. 218, Pages 1 - 66, Sep 2021

Conference Proceedings

- Probabilistic Sequential Shrinking: A Best Arm Identification Algorithm for Stochastic Bandits with Corruptions [Code]
Zixin Zhong, Wang Chi Cheung, and Vincent Y. F. Tan
International Conference on Machine Learning (ICML), Virtual, July 2021
- Best Arm Identification for Cascading Bandits in the Fixed Confidence Setting
Zixin Zhong, Wang Chi Cheung, and Vincent Y. F. Tan
International Conference on Machine Learning (ICML), Virtual, July 2020
- A Thompson Sampling Algorithm for Cascading Bandits (oral presentation)
Wang Chi Cheung, Vincent Y. F. Tan, and **Zixin Zhong**
International Conference on Artificial Intelligence and Statistics (AISTATS), Naha, Okinawa, Japan, April 2019

Professional Activities

- Reviewer of International Conference on Artificial Intelligence and Statistics (AISTATS), 2022
- Reviewer of International Conference on Learning Representations (ICLR), 2022
- Reviewer of Neural Information Processing Systems (NeurIPS), 2021
- Reviewer of International Conference on Artificial Intelligence and Statistics (AISTATS), 2021
- Reviewer of IEEE Transactions on Information Theory

Academic Activities

- INFORMS 2021 Annual Meeting, Virtual, 24-27 October 2021
Oral presentation of the work appeared at ICML 2021
- The 22nd Conference of the International Federation of Operational Research Societies (IFORS), Virtual, 23-27 August 2021
Oral presentation of the work appeared at ICML 2021
- The 3rd TBSI Workshop on Learning Theory (WOLT), TBSI, 5-7 July 2021
Oral and poster presentation of the work appeared at ICML 2021
- Analytics for X, iORA, NUS, 19-21 May 2021
Oral presentation of the work appeared at ICML 2021

Internship

Nov. 2020 to Mar. 2021

Data scientist

AiDA Thchnologies Pte Ltd, Singapore

· Reporting officers: Dr. Tan Geok Leng (CEO), Dr. Zha Wei

- **Insurance upsell/cross sell.** Developing a predictive analytics model for identifying candidates who have a propensity to buy insurance products from a bank's existing CASA customer base.

- **PIER71 Smart Port Challenge.** Developing a machine learning model to predict the Estimated Time of Arrival (ETA) for vessels plying between two known port pairs which achieves 1.34% percentage error. Analyzing the limitations of the model so developed.
- **Trading Floor Misconduct.** Developing a framework for text mining using Regular Expression to conduct experiments to lockdown parameters so that Risk Events may be detected with low False Alarm rates. The framework is now used as a **standard tool** in the company.

Honors & Rewards

Aug. 2017 to Jun. 2021	NUS Research Scholarship
2014	National Merit Scholarship, China
2014, 2015	First Class Scholarship, SYSU

Skills

Computer: Python, Matlab, Latex, R, C/C++

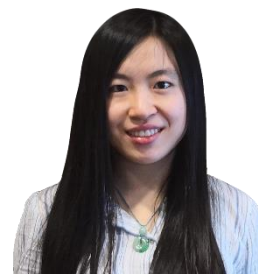
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研究兴趣

机器学习（如：多臂赌博机问题 Multi-armed bandit problem）

工作经历

2021.06 至今 电子与计算机工程系研究员
新加坡国立大学
· 导师：Vincent Y. F. Tan 教授，Wang Chi Cheung 教授

教育背景

2017.08 至今 数学系在读博士生
新加坡国立大学
· 导师：Vincent Y. F. Tan 教授 (主)，Wang Chi Cheung 教授

2013.08 - 2017.06 理学士，数学学院（校优秀毕业生）
中山大学: 4.1/5.0
· 毕业论文导师：冯国灿教授

2015.08 – 2015.12 国际交流学生
美国加州大学伯克利分校

2014.11 – 2017.06 逸仙学院（国家基础学科拔尖学生培养试验计划，招收数学学院前5%的学生）
中山大学

期刊论文

- [Thompson Sampling Algorithms for Cascading Bandits \[Code\]](#)
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审稿工作

- Reviewer of International Conference on Artificial Intelligence and Statistics (AISTATS), 2022
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实习经历

2020.11 - 2021.03

数据分析

AiDA Thchnologies Pte Ltd, Singapore

· 主管: Tan Geok Leng 博士(CEO), Zha Wei 博士

- 建立 LGBT 模型从银行现有的客户群中识别倾向于购买保险产品的人群。

- 建模预测往返于两个已知港口之间的船只的预计到达时间，达到 1.34% 的误差率；并分析模型的局限性。
- 使用正则表达式等工具构建进行文本挖掘的框架，从而以较低的虚警率从聊天记录文本中识别不当的交易行为。该框架现在作为**标准工具**被公司的其他员工使用。

荣誉奖项

2017.08	新加坡国立大学 Research Scholarship
2014	国家奖学金
2014, 2015	中山大学优秀学生奖学金一等奖

技能及其他

编程： Python, Matlab, Latex, R, C/C++

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教育背景

2017.08 至今	数学系在读博士生 新加坡国立大学 · 导师：Vincent Y. F. Tan 教授 (主)，Wang Chi Cheung 教授
2013.08 - 2017.06	理学士，数学学院（校优秀毕业生） 中山大学: 4.1/5.0 · 毕业论文导师：冯国灿教授
2015.08 – 2015.12	国际交流学生 美国加州大学伯克利分校
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实习经历

2020.11 - 2021.03	数据分析 AiDA Thchnologies Pte Ltd, Singapore · 主管: Tan Geok Leng 博士(CEO), Zha Wei 博士 <ul style="list-style-type: none">建立 LGBT 模型从银行现有的客户群中识别倾向于购买保险产品的人群。建模预测往返于两个已知港口之间的船只的预计到达时间，达到 1.34% 的误差率；并分析模型的局限性。使用正则表达式等工具构建进行文本挖掘的框架，从而以较低的虚警率从聊天记录文本中识别不当的交易行为。该框架现在作为标准工具被公司的其他员工使用。
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学术活动

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Submitted Manuscripts

- Wang Chi Cheung, **Zixin Zhong**, and Vincent Y. F. Tan, "Thompson Sampling Algorithms for Cascading Bandits", submitted to Journal of Machine Learning Research (JMLR), May 2020

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- **Zixin Zhong**, Wang Chi Cheung and Vincent Y. F. Tan, "Best Arm Identification for Cascading Bandits in the Fixed Confidence Setting", submitted to International Conference on Machine Learning (ICML 2020), Jan 2020
- Wang Chi Cheung, Vincent Y. F. Tan, and **Zixin Zhong** "Thompson Sampling Algorithms for Cascading Bandits", submitted to Operations Research, Jun 2019

已发表论文

- Wang Chi Cheung, Vincent Y. F. Tan, and **Zixin Zhong** "A Thompson Sampling Algorithm for Cascading Bandits" (oral presentation), International Conference on Artificial Intelligence and Statistics (AISTATS), Naha, Okinawa, Japan, 2019

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