

Dr Mengyan Zhang

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WORK EXPERIENCE

NCCR Automation Fellowship

Funded Research Visit at Learning and Adaptive Systems (LAS) Group in ETH Zurich, Switzerland, Funded, up to CHF 20,000, 2024.02- 2024.04

Postdoctoral Researcher

Computational Statistics and Machine Learning, Department of Computer Science, University of Oxford, 2023.05 -

Research Assistant

Vollmer Research Group, RPTU Kaiserslautern and German Research Center for Artificial Intelligence (DFKI), 2022.10 - 2023.4

Research Internship

Social Computing Lab, Microsoft Research Asia, 2021.10 - 2022.03, worked on deep contextual bandits for news recommendation.

Academic Tutor

Australian National University, paid teaching position, 2019-2021, total working hours: 300h

EDUCATION

Ph.D. in Machine Learning:

Adaptive Recommendations with Bandit Feedback (awarded in 2023.02)

Computational Media Lab, The Australian National University, 2018.08- 2023.02
Machine Learning Research Group, Data61, CSIRO, 2018.08- 2023.02

Bachelor of Computer Science (first class honours)

The Australian National University and Shandong University, 2+2 joint degree, 2014-2018, GPA 6.938/7.0

RESEARCH INTERESTS

Sequential decision-making in machine learning in theory and practice: (I) Designing robust algorithms to handle imperfect feedback and understand causal relationships in sequential decision-making. (II) Designing decision-making algorithms to solve real-world problems in various areas, for example, synthetic biology, global health, survey design, and public policy.

SELECTED PUBLICATIONS/ PRE-PRINTS ¹

Optimal disease surveillance with graph-based Active Learning

Joseph L.-H. Tsui^{}, Mengyan Zhang^{*}, Prathyush Sambaturu, Simon Busch-Moreno, Marc A. Suchard, Oliver G. Pybus, Seth Flaxman, Elizaveta Semenova, and Moritz U. G. Kraemer (2024). Under Review; [KDD 2024 Workshop epiDAMIK](#)*

Graph Agnostic Causal Bayesian Optimisation

Sumantrak Mukherjee^{}, Mengyan Zhang^{*}, Seth Flaxman, Sebastian Josef Vollmer (2024).*

Adaptive Recommendations with Bandit Feedback

Mengyan Zhang (2023). PhD thesis (Supervisors: Cheng Soon Ong, Lexing Xie, Eduardo Eyras)

¹*: EQUAL CONTRIBUTION

Two-Stage Neural Contextual Bandits for Personalised News Recommendation

Mengyan Zhang, Thanh Nguyen-Tang, Fangzhao Wu, Zhenyu He, Xing Xie, Cheng Soon Ong (2023). Preprint.

Gaussian Process Bandits with Aggregated Feedback

Mengyan Zhang, Russell Tsuchida, Cheng Soon Ong (2022). AAAI Conference on Artificial Intelligence.

Machine learning Guided Batched Design of a Bacterial Ribosome Binding Site

Mengyan Zhang, Maciej Bartosz Holowko, Huw Hayman Zumpe, Cheng Soon Ong. (2022). ACS Synthetic Biology Journal.

Quantile Bandits for Best Arms Identification

Mengyan Zhang, Cheng Soon Ong. (2021). International Conference on Machine Learning.

Opportunities and Challenges in Designing Genomic Sequences

Mengyan Zhang, Cheng Soon Ong (2021). ICML Workshop on Computational Biology.

SELECTED AWARDS

2024 Award for Excellence, University of Oxford [top 10%]

2023 CORE Distinguished Dissertation Award Commendation (PhD thesis)

2019 PhD Scholarship of ANU, Data61 Top-up Postgraduate Research Scholarship

2017 Paul Thistlethwaite Memorial Honours Year Scholarship of ANU

TALKS/PRESENTATIONS

Feb. 2024: LAS Group, ETH Zurich, Switzerland

Talk: Sequential Decision-Making: Theory and Applications in Public Health

Dec. 2023: Google DeepMind, London

Talk: Design Choices in Sequential Decision-Making with Bandit Feedback

Jun. 2022: ANU AI-ML-Friends seminar (PhD Completion Talk)

Slides: Adaptive Recommendations with Bandit Feedback

Feb. 2022: Microsoft Research Asian Social Computing Group Seminar

Slides: Bandits in Recommendation System

TEACHING

Guest lecturer at RMIT Bioinformatics and Multi-omics data analysis (BIOL 2524) : introduction to ML and applications in biology (remotely, 3 lectures, May 2023)

Tutor for [COMP8600 Statistical Machine Learning](#) (S1 2019, S1 2020, S1 2021)

Tutor for [COMP6670 Introduction to Machine Learning](#) (S2 2020)

TECHNICAL SKILLS

Programming: Python (familiar with PyTorch), Java, C#, C++

Language: Chinese, English

REFeree

Prof. Seth Flaxman

Associate Professor in Department of Computer Science at University of Oxford

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Dr. Cheng Soon Ong

Senior Principal Research Scientist, Director of [ML and AI future science platform](#) at CSIRO

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