Mengyan Zhang

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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

WORK EXPERIENCE

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

RESEARCH INTERESTS

My research interests are online experimental design in machine learning, including multi-armed bandits and active learning. I work on both theoretical and practical views of experimental design with two goals: (I) Designing robust algorithms to reflect the preference of agents and understanding the concentration of measures and adaptive strategies involved. (II) Designing the pipeline and recommendation strategies for synthetic biology experimental design applications.

PUBLICATIONS/ PRE-PRINTS

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.*

Two-Stage Neural Contextual Bandits for Personalised News Recommendation
Mengyan Zhang, *Thanh Nguyen-Tang, Fangzhao Wu, Zhenyu He, Xing Xie, Cheng Soon Ong (2022). Under Review.*

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 Zhnag, *Cheng Soon Ong (2021). ICML Workshop on Computational Biology.*

Classification of Historical Death and Occupation coding
Mengyan Zhang *(2018). Honours thesis. (Supervisors: Peter Christen, Timothy Graham)*

OPEN SOURCE

Acton: Active Learning Library for Knowledge Graph
Matthew Alger, ***Mengyan Zhang****, Cheng Soon Ong. (2018). Python software*

AWARDS

2019 Data61 Top-up Postgraduate Research Scholarship
2018 PhD Scholarship of ANU
2018 ANU HDR Fee Remission Merit Scholarship
2017 Paul Thistlewatte Memorial Honours Year Scholarship of ANU
2015-2016 National Scholarship (China)
2016 Lan Qiao Cup Programming Competition Shandong province 1st prize

TALKS/PRESENTATIONS

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
Dec. 2021: WiML workshop in NeurPIS
Poster presentation: Gaussian Process Bandits with Aggregated Feedback
Jul. 2021: ICML Workshop on Computational Biology
Spotlight Talk: Opportunities and Challenges in Designing Genomic Sequences
Jul. 2021: Thirty-ninth International Conference on Machine Learning
Poster presentation: Quantile Bandits for Best Arms Identification
Jul. 2020: Machine Learning Summer School (acceptance rate: 13.84%)
Poster presentation: Quantile Bandits for Best Arms Identification
Dec. 2019: Collaborative Conference on Computational and Data Intensive Science
Talk: Optimized Experimental Design for Translation Initiation using Machine Learning

TEACHING

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
Others: Git, LaTeX

REFEREE

Dr. Cheng Soon Ong
Senior Principal Research Scientist, Director of ML and AI future science platform at CSIRO
chengsoon.ong@anu.edu.au

Prof. Lexing Xie
Professor, School of Computing, ANU; Director of Computation Media lab; Director of Humanising Machine Intelligence
lexing.xie@anu.edu.au