

Dong QIAO

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Education

The Chinese University of Hong Kong, Shenzhen

PhD student in Computer and Information Engineering. To Graduate in July 2026

Advisor: Prof. Jicong Fan and Prof. Chris H.Q. Ding

Sep. 2021 – Present

Shenzhen, China

Central South University

Master of Management in Management Science and Engineering

Advisor: Prof. Jian-qiang Wang

Sep. 2017 – Jul. 2020

Changsha, China

Zhengzhou University

Bachelor majoring in Management, minoring in Laws

Major GPA: 3.5/4.0 (rank: 5/85)

Sep. 2013 – Jul. 2017

Zhengzhou, China

Research Interests

My research interest lies in unsupervised machine learning, nonlinear similarity learning, and federated learning

Publications

Conference

- Dong Qiao, Xinxian Ma, Jicong Fan. *Federated t-SNE and UMAP for Distributed Data Visualization*. AAAI 2025. Accepted.
- Dong Qiao, Chris Ding, Jicong Fan. *Federated Spectral Clustering via Secure Similarity Reconstruction*. NeurIPS 2023. Accepted.

Preprint

- Dong Qiao, Jicong Fan. *Mutual regression distance*. <https://arxiv.org/abs/2501.10617>.
- Zixiao Wang, Dong Qiao, Jicong Fan. *Spectral clustering for discrete distributions*. <https://arxiv.org/abs/2401.13913>.

Journal

- Dong Qiao, Xiao-kang Wang, Jian-qiang Wang, Lin Li. *Maximum entropy-based method for extracting the underlying probability distributions of z-number*. Applied and Computational Mathematics: An International Journal. 2024, 23(2): 201-218.
- Dong Qiao, Kai-wen Shen, Jian-qiang Wang, Tie-li Wang, *Multi-criteria PROMETHEE method based on possibility degree with Z-numbers under uncertain linguistic environment*. Journal of Ambient Intelligence and Humanized Computing, 2020, 11(5): 2187-2201.
- Dong Qiao, Yi-ting Wang, Jian-qiang Wang, Hanyang Luo, Lin Li. *Likelihood-based qualitative flexible approach to ranking of Z-numbers in decision problems*. Computational and Applied Mathematics, 2020, 39(2): 134.
- Dong Qiao, Xiao-kang Wang, Jian-qiang Wang, Ke Chen, *Cross entropy for discrete Z-numbers and its application in multi-criteria decision-making*. International Journal of Fuzzy Systems, 2019, 21(6): 1786-1800.
- Kai-wen Shen, Xiao-kang Wang, Dong Qiao, Jian-qiang Wang, *Extended Z-MABAC method based on regret theory and directed distance for regional circular economy development program selection with Z-information*. IEEE Transactions on Fuzzy Systems, 2020, 28(8): 1851-1863.

Teaching Experiences

DDA3020: *Machine Learning* | Teaching Assistant (L)

Autumn 2023

DDA4210: *Advanced Machine learning* | Teaching Assistant (L)

Spring 2023

STA4001: *Stochastic Process* | Teaching Assistant

Fall 2022

DDA2001: *Introduction to Data Science* | Teaching Assistant

Spring 2022

CSC3001: *Discrete Mathematics* | Teaching Assistant

Fall 2021

Honors & Scholarships

SDS TA/USTF Award <i>Awarded for best performance as a teaching assistant</i>	2023 <i>School of Data Science at CUHK-Shenzhen</i>
National Scholarship for Postgraduates <i>Awarded for excellent academic performance</i>	2019 <i>Ministry of Education of China</i>
Excellent Graduates	2020 <i>Hunan Province Education Department</i>
Excellent Graduates	2020 <i>Central South University</i>

Professional service

Journal referee: Transaction on Knowledge and Data Engineering (TKDE), Computers and Industrial Engineering (CAIE), Transactions on Knowledge Discovery from Data (TKDD)

Conference reviewer: NeurIPS, ICLR, ICML

Technical Skills

Programming Languages: L^AT_EX, Python