

Yixin WANG

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EDUCATION

Shenzhen University

Sep. 2020 – Jul. 2023

M.Sc. in Management Science and Engineering, equivalent to MPhil

College of Management

GPA: 3.52, Average Score: 85.9, Supervisor: Prof. Hong Wang and Prof. Ben Niu

Thesis: Medical resources allocation for hierarchical healthcare system based on multiobjective bacterial colony optimization

Dongguan University of Technology

Sep. 2016 – Jul. 2020

B.Sc. in Industrial Engineering

School of Mechanical Engineering

GPA: 3.90, Average Score: 89.0

WORK EXPERIENCE

Research Associate (Full-time)

Jul. 2023 – present

The Hong Kong Polytechnic University

Department of Logistics and Maritime Studies (LMS)

Research Assistant (Part-time)

Nov. 2020 – Nov. 2021

Shenzhen University

Greater Bay Area International Institute for Innovations (GBAI3)

Teaching Assistant (Part-time)

Spring term, Mar. 2022 – Jun. 2022

Shenzhen University

College of Management, Tutorial: "E-Commerce Simulation Practice"

Teaching Assistant (Part-time)

Spring term, Mar. 2021 – Jun. 2021

Shenzhen University

College of Management, Tutorial: "Basic C Programming Language"

ACADEMIC HONORS

- **Best Paper Award**, the 13th International Conference on Swarm Intelligence (ICSI) (2022)
- **Second Prize**, The 19th "Optics Valley of China · HUAWEI CUP" China Postgraduate Mathematical Contest in Modeling (2022) **Rank: 290/4021**
- **Second Prize**, The 11th Asia and Pacific Mathematical Contest in Modeling (APMCM), Postgraduate group (2021)
- **Third Prize**, The 18th "HUAWEI CUP" China Postgraduate Mathematical Contest in Modeling (2021)
- **Second Prize** for Excellent Postgraduate Scholarship, Shenzhen University (among **the 10 awardees** in each year) (2022, 2023)
- **National Encouragement Scholarship**, Department of Education of Guangdong Province, China (granted to **top 4% of undergraduates** in school each year) (2017, 2018, 2019)
- Guangda, Kanghua Enterprise Scholarship, Dongguan University of Technology (granted to **only 2 undergraduates**) (2018, 2019)
- **Excellent Undergraduate Scholarship**, Dongguan University of Technology (2017)

PUBLICATIONS

Peer-referred journal papers:

- [1] Hong Wang (*Supervisor*), Yixin Wang, Menglong Liu, Tianwei Zhou, and Ben Niu. "An enhanced bacterial colony optimization with dynamic multi-leader co-evolution for multiobjective optimization problems." *Expert Systems*, 2023. (JCR Q2, IF: 3.30) <[Link](#)> <[PDF](#)>
- [2] Hong Wang (*Supervisor*), Yikun Ou, Yixin Wang, Tongtong Xing, and Lijing Tan. "Semisupervised bacterial heuristic feature selection algorithm for high-dimensional classification with missing labels." *International Journal of Intelligent Systems*, 2023. (JCR Q1, IF: 8.993) <[Link](#)> <[PDF](#)>
- [3] Shuang Geng, Xiaofu He, Yixin Wang, Hong Wang, Ben Niu, Kris M. Law. "Multicriteria recommendation based on bacterial foraging optimization." *International Journal of Intelligent Systems*, 2021. (JCR Q1, IF: 8.993) <[Link](#)> <[PDF](#)>

Full papers in conference proceedings:

- [4] Hong Wang (*Supervisor*), Yixin Wang, Mengjie Wan, Sili Wen, and Shan Wei. "Multi-objective bacterial colony optimization based on multi-subsystem for environmental economic dispatching." In *the 13th International Conference on Swarm Intelligence (ICSI 2022)*. (Best Paper Award) <[Link](#)> <[PDF](#)>
- [5] Hong Wang (*Supervisor*), Yikun Ou, and Yixin Wang. "A multi-objective structure variant bacterial heuristic feature selection method in high-dimensional data classification." In *the 6th Data Mining and Big Data (DMBD 2021)*. <[Link](#)> <[PDF](#)>
- [6] Hong Wang (*Supervisor*), Yixin Wang, Yikun Ou, Ben Niu. "Bacterial foraging optimization with leader selection strategy for bi-objective optimization." In *the 12th International Conference on Swarm Intelligence (ICSI 2021)*. <[Link](#)> <[PDF](#)>
- [7] Hong Wang (*Supervisor*), Zhuo Zhou, Yixin Wang, Xiaohui Yan. "Feature selection for image classification based on bacterial colony optimization." In *the 12th International Conference on Swarm Intelligence (ICSI 2021)*. <[Link](#)> <[PDF](#)>
- [8] Hong Wang (*Supervisor*), Yixin Wang, Ting Guo, Yibin Wang, Yikun Ou. "An empirical study of social E-commerce platform on users intention: take WeChat E-commerce group as an example." In *the 12th International Conference on E-business, Management and Economics (ICEME, 2021)*. <[Link](#)> <[PDF](#)>

† In papers [1, 4, 6, 8], I (Yixin Wang) undertook at least 70% of the research work, and the first author Hong Wang was my supervisor and the receipt of the grants that funded the researches. In papers [2, 3, 5, 7], I acted as a collaborator and undertook 10%-20% of the research work.

PRESENTATIONS

- "Deep Reinforcement Learning for Inventory Management under Stochastic Demand", The 2nd ORSHK Young Researchers Workshop, CityU, Hong Kong, Dec 2023
- "Optimization Path of Resource Integration under Medical Alliance as Tertiary Hospitals Eliminate General Outpatient Clinics", The 5th Intelligent Manufacturing System Engineering Conference, Shenzhen, Nov 2022

MISCELLANEOUS

Research interests:

- **Learning-based algorithms:** Reinforcement learning, Deep learning (sequence/generative models), etc.
- **Optimisation:** Evolutionary computation, Integer programming, Simulation, etc.
- **Applications:** Transportation, Operation management (e.g., inventory management), Healthcare, etc.

Professional skills:

- **Projects experiences:** Meta-heuristic algorithms, Deep reinforcement learning, Inventory management optimization, Discrete event simulation (public transportation system), Healthcare system modeling, etc.
- **Programming tools:** Python, Matlab; Git, Linux; PyTorch, Simpy, Ray, etc.