

# Benedict Jun MA

Department of Industrial and Manufacturing Systems Engineering  
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## EDUCATION

<b>The University of Hong Kong</b> PhD in Industrial and Manufacturing Systems Engineering <i>Supervised by Prof. Yong-Hong Kuo &amp; Prof. George Q. Huang</i>	Hong Kong 2024
<b>Northeast Forestry University</b> BEng in Control Science and Engineering (GPA: 93.5/100, Rank: 1/64) <i>Awarded China National Scholarship twice</i>	Harbin, China 2020

## ACADEMIC EXPERIENCE

<b>Mines Paris, PSL University</b> Visiting Doctoral Student in Center for Management Science <i>Supervised by Prof. Shenle Pan &amp; Prof. Eric Ballot</i>	Paris, France Aug – Nov 2023
<b>Rotterdam School of Management, Erasmus University</b> Visiting Researcher in Technology and Operations Management <i>Hosted by Prof. René de Koster</i>	Rotterdam, Netherlands Oct 2023
<b>NHH Norwegian School of Economics</b> Doctoral Student in Course BEA522 on Rural Logistics <i>Supported by Research Council of Norway</i>	Bergen, Norway Jul – Aug 2023
<b>Hong Kong University of Science and Technology</b> Visiting Internship Student in Electronic and Computer Engineering <i>Supervised by Prof. Weichuan Yu</i>	Hong Kong Jun – Aug 2019

## RESEARCH INTERESTS

- Warehouse Operations and Management, Logistics and Supply Chain Management
- Computational Intelligence, Algorithm Design and Applications

## JOURNAL PUBLICATIONS

\* denotes the corresponding author

### - Logistics and Supply Chain Management

1. **Ma BJ**, Kuo YH, Jiang Y, & Huang GQ\*. (2023). RubikCell: Toward Robotic Cellular Warehousing Systems for E-Commerce Logistics. *IEEE Transactions on Engineering Management*, Early Access.
2. **Ma BJ**, Zhang Y\*, Liu S, Jiang Y, He Y, & Yan K. (2022). Operational strategies for IoT-enabled Brick-and-Mortar retailers in a competitive market. *Computers & Industrial Engineering*, 173, 108665.
3. Xu TZ, Liu SS, **Ma BJ**, & Ng AKY\*. (2023). Impacts of advertising formation on adopting alternative fuel vehicles in a competitive market. *Transportation Research Part D*, 118, 103673.
4. Liu SS, Hua G\*, **Ma BJ**, & Cheng TCE. (2023). Competition between green and non-green products in the blockchain era. *International Journal of Production Economics*, 264, 108970.
5. Jiang Y, Li M, **Ma BJ**, Zhong RY, & Huang GQ\*. (2024). Data-driven out-of-order model for synchronized planning, scheduling, and execution in modular construction fit-out management. *Computer-Aided Civil and Infrastructure Engineering*, Forthcoming.

### - Machine Learning, Computational Intelligence

1. **Ma BJ\***, Liu S, & Heidari AA. (2022). Multi-strategy ensemble binary hunger games search for feature selection. *Knowledge-Based Systems*, 248, 108787.
2. **Ma BJ**, Pereira JLJ, Oliva D, Liu S, & Kuo YH\*. (2023). Manta ray foraging optimizer-based image segmentation with a two-strategy enhancement. *Knowledge-Based Systems*, 262, 110247.

3. Pereira JLJ, **Ma BJ\***, Francisco MB, Junior RFR, & Gomes GF. (2023). A comparison between chaos theory and Lévy flights in sunflower optimization for feature selection. *Expert Systems*, 40(8), e13330.
4. Pereira JLJ, Francisco MB, de Almeida FA, **Ma BJ\***, Cunha SS, & Gomes GF. (2023). Enhanced Lichtenberg algorithm: A discussion on improving metaheuristics. *Soft Computing*, 27(21), 15619–15647.
5. Bao R, Zhang Y, **Ma BJ**, Zhang Z, & He Z\*. (2022). An Artificial Neural Network for Lightning Prediction Based on Atmospheric Electric Field Observations. *Remote Sensing*, 14(17), 4131.
6. de Souza TAZ\*, Pereira JLJ, Francisco MB, Sotomonte CAR, **Ma BJ**, Gomes GF, & Coronado CJR. (2022). Multi-objective optimization for methane, glycerol, and ethanol steam reforming using lichtenberg algorithm. *International Journal of Green Energy*, 20(4), 390-407.
7. Zhao X, Liu L, Heidari AA, Chen Y, **Ma BJ**, Chen H\*, Quan S. (2023). An enhanced ant colony optimizer with Cauchy-Gaussian fusion and novel movement strategy for multi-threshold COVID-19 X-ray image segmentation. *Frontiers in Neuroinformatics*, 17, 1126783.

## BOOK CHAPTERS

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1. **Ma BJ\***. Hybrid adaptive moth-flame optimizer and opposition-based learning for training multilayer perceptions. (2022). In: Integrating Meta-Heuristics and Machine Learning for Real-World Optimization Problems. *Studies in Computational Intelligence*. Cham: Springer International Publishing.

## WORKING PAPERS

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1. **Ma BJ**, Wang J, Kuo YH\*, Huang GQ. “Robotic Order Picking in Cellular Warehousing based on a Time-Space-State Network.” *IEEE Transactions on Cybernetics* (Under review).
2. Liu SS, **Ma BJ\***, Zhang, W, Cheng TCE., Li X. “Eliminating Information Asymmetry in Supply Chains: Blockchain-driven or not.” *Transportation Research Part E* (Under review).
3. Wang J, **Ma BJ\***, Yang Y, Kuo YH, Cheng CH. “Group buying with consumer disappointment at failed deals.” *Transportation Research Part E* (Under review).
4. **Ma BJ**, Pan S, Zou B, Kuo YH\*, Huang GQ. “Operating Policies for Robotic Cellular Warehousing Systems” *Transportation Research Part E* (Under review).
5. Liu SS, **Ma BJ\***. “How do consumer quality preferences impact blockchain adoption within supply chains?” *Computers & Industrial Engineering* (Under review).
6. **Ma BJ**, Wang J, Kuo YH. “Dedicated or Shared: How do Third-Party E-commerce Warehouses Choose?” *Working*. (To be submitted to Production and Operations Management).

## RESEARCH GRANTS

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<b>Intelligent Control of Fresnel Lens Spot in Aeroponic Energy-Saving Micro Plant Factory</b>	
National Innovation Training Program for Undergraduates (No. 201810225049), MOE, China	
Principal Investigator, RMB 20,000	2018 – 2019
<b>SynchroHub: Cyber-Physical Internet for Synchronizing Cross-Border Logistics Hubs</b>	
Theme-based Research Scheme (No. T32-707/22-N), RGC, Hong Kong	
Researcher (PC: George Q. Huang), HKD 42.6 Million	2023 – 2028

## PATENTS

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An Intelligent Warehouse Management System with Methods (No. 202210212235.1)	In process
A plant factory based on Fresnel lens and ultrasonic atomization (No. CN208211121U)	Authorized

## CONFERENCE PRESENTATIONS

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<b>“Dedicated or Shared: How do Third-Party E-commerce Warehouses Choose?”</b>	
The 33rd Annual POMS Conference, Orlando, USA	May 2023
<b>“RubikCell: Towards Robotic Cellular Warehousing Systems for E-commerce Logistics”</b>	
The 50th Computers and Industrial Engineering (CIE) Conference, Sharjah-Dubai, UAE	Oct 2023
<b>“Robotic Order Picking in Cellular Warehousing based on a Time-Space-State Network”</b>	
The 27th Hong Kong Society for Transportation Studies (HKSTS) Conference, Hong Kong	Dec 2023
<b>“Operating Policies for Robotic Cellular Warehousing Systems”</b>	
The 14th POMS-HK International Conference, Hong Kong	Jan 2024

## INVITED TALKS

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<b>“Optimization and Management in Robotic Cellular Warehousing Systems”</b> Business School, Sichuan University (SCU)	Nov 2023
<b>“Outsourced Order Fulfillment in E-commerce: Warehousing Mode and Contract Choices”</b> Business School, Southern University of Science and Technology (SUSTech)	Dec 2023
<b>“Robotic Order Picking in Cellular Warehousing based on a Time-Space-State Network”</b> Center for Transportation & Logistics, Massachusetts Institute of Technology (MIT)	Feb 2024

## TEACHING

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<b>Teaching Assistant</b>	The University of Hong Kong
IMSE 4135 Systems Integration (UG) [rating: 80.0/100]	Full Year 2023
IMSE 3107 Systems Modeling and Simulation (UG) [rating: 81.8/100]	Spring 2023
IMSE 7221 Warehousing and City Logistics (PG) [rating: 94.2/100]	Fall 2022
IMSE 7902 Project Management (PG) [rating: 91.7/100]	Fall 2022
IMSE 7015 Engineering Economics and Finance (PG) [rating: 86.4/100]	Fall 2021

## HONOR & AWARD

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Postgraduate Scholarship (PGS) in HKU	2020 – 2024
China National Scholarship	2017 & 2018 (Twice)
2018 International Mathematical Contest in Modeling (MCM)	Meritorious Winner

## PROFESSIONAL SERVICES

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### Reviewer for Journals

Applied Intelligence  
Archives of Civil Engineering  
Archives of Computational Methods in Engineering  
Computers & Industrial Engineering  
Evolving Systems  
Expert Systems with Applications  
IEEE Access  
IEEE Transactions on Network Science and Engineering  
Information Fusion  
International Journal of Production Research  
Journal of Bionic Engineering  
Knowledge-Based Systems  
Neural Computing and Applications  
PLOS One  
Recent Advances in Electrical & Electronic Engineering  
Soft Computing  
Transportation Research Part E

### Reviewer for Conferences

IEEE International Conference on Robotics and Automation (ICRA 2022)  
18th IFAC Symposium on Information Control Problems in Manufacturing

## MEMBERSHIP

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- Institute of Electrical and Electronics Engineers (IEEE)
- Institute of Industrial and Systems Engineers (IISE)
- Production and Operations Management Society (POMS)
- Institute for Operations Research and the Management Sciences (INFORMS)
- Operational Research Society of Hong Kong (ORSHK)
- International Federation of Operational Research Societies (IFORS)

## REFEREES

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- **Prof. Yong-Hong Kuo**  
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