

# Ruiqi (Ricky) Chen

PhD Candidate

Centre for Data Science & Artificial Intelligence

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🌐 LinkedIn



## Education

- 2023 – Present 📖 **Ph.D. in Computer Science** | Victoria University of Wellington, New Zealand  
**Thesis Title:** *Machine Learning for Dynamic Job Shop Scheduling*  
**Supervisors:**  
-A/Prof Yi Mei (Fellow of Engineering New Zealand, IEEE Senior Member, Associate Dean)  
-Dr Fangfang Zhang (Lecturer)  
-Prof Mengjie Zhang (Fellow of the Royal Society of New Zealand, Fellow of Engineering New Zealand, IEEE Fellow)
- 2017 – 2021 📖 **B.Eng. in Industrial Engineering** | Soochow University, China  
GPA: 3.6/4; Ranking: 5/72, top 7%

## Research Publications

### Journal Articles

- R. Chen**, W. Li, C. Wang, and H. Yang, "Interactive operation agent scheduling method for job shop based on deep reinforcement learning," *Journal of Mechanical Engineering*, vol. 59, no. 12, p. 78, 2023, ISSN: 0577-6686. [DOI: 10.3901/JME.2023.12.078](https://doi.org/10.3901/JME.2023.12.078).
- R. Chen**, W. Li, and H. Yang, "A deep reinforcement learning framework based on an attention mechanism and disjunctive graph embedding for the job-shop scheduling problem," *IEEE Transactions on Industrial Informatics*, vol. 19, no. 2, pp. 1322–1331, Feb. 2023, ISSN: 1941-0050. [DOI: 10.1109/TII.2022.3167380](https://doi.org/10.1109/TII.2022.3167380).

### Conference Proceedings

- R. Chen**, Y. Mei, F. Zhang, and M. Zhang, "Neural network surrogate based on binary classification for assisting genetic programming in searching scheduling heuristic," in *PRICAI 2024: 21th Pacific Rim International Conference on Artificial Intelligence*, Springer, 2024.

## Languages

- English 📖 Strong competencies in reading, writing, speaking, understanding, and peer reviewing
- Chinese 📖 Strong competencies in reading, writing, speaking, understanding, and peer reviewing
- German 📖 Basic communication





## Competitions

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- 2019  **The 2<sup>nd</sup> Chinese College Students Intelligent Manufacturing Competition**  
**Award:** Second Prize in Finals & First Prize in East China Division  
**Role:** Captain of Soochow University Team
-  **The 2<sup>nd</sup> Sunon Smart Service Innovation Competition**  
**Award:** Third Prize
- 2020  **The 6<sup>th</sup> China International College Students “Internet+” Innovation and Entrepreneurship Competition**  
**Award:** Third Prize in Soochow University & First Prize in School of Mechanical and Electrical Engineering  
**Role:** Team Head
-  **The 21<sup>st</sup> “Challenge Cup” National College Students Science and Technology Competition**  
**Award:** Second Prize & Third Prize in Soochow University  
**Role:** Team Head
-  **The 15<sup>th</sup> Tsinghua University ‘NISSAN Cup’ Industrial Engineering Competition**  
**Award:** Third Prize







## Honours

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- 2021  Excellent Undergraduate Thesis in Soochow University  
(Awarded to only one student in the Industrial Engineering department)
- 2019  First Prize for Innovation and Entrepreneurship in Soochow University
-  Second Prize for Studying Excellent in Soochow University
- 2018  Outstanding Student Leader in School of Mechanical & Electrical Engineering, Soochow University

## Skills

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- Algorithm  Evolutionary Computation, Deep Learning, Reinforcement Learning, Heuristics, Exact Optimisation Algorithms
- Coding  Python, Java, C, C#, PLC Programming.
- Optimizer  Google OR-Tools, IBM ILOG CPLEX.
- Simulation  SIEMENS Tecnomatix Plant Simulation, AnyLogic.
- Robot  FANUC C-class Robot Engineer Certificate
- Design  SolidWorks, LaTeX, Microsoft Office, Adobe PS PR AE.