

YUZHOU LIU

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EDUCATION

Singapore Management University	<i>Singapore</i>
<i>Ph.D. in Business (Operations Management)</i>	08/2023–Present
Nanjing University	<i>Nanjing, China</i>
<i>M.S. in Mathematics</i>	09/2020–06/2023
Nanjing University	<i>Nanjing, China</i>
<i>B.S. in Mathematics</i>	09/2016–06/2020

RESEARCH INTERESTS

Optimization under Uncertainty, Distributionally Robust Optimization, Operations Management

WORKING EXPERIENCE

SRIBD Research Assistant in the Chinese University of Hong Kong, Shenzhen, China 07/2021–06/2022

WORKS IN PROGRESS

Data-Driven Markov Decision Processes with Heterogeneous Groups: Regret Guarantees and Fairness Improvement via Robust Optimization

- Investigate the efficiency and fairness implications of robust optimization through a finite-horizon Markov Decision Process perspective, involving heterogeneous groups that differ in rewards and transition kernels

Complexity Reduction and Correlation Splitting on Distributionally Robust Multi-item Newsvendor Problem with Risk-aversion

- Reduce the complexity of exponential matrices inequalities to linear magnitude through Constrained Boolean Quadric Polytope and exploit partial correlations to address the issue of tractability

Multi-Trip Vehicle Routing Problem with Time Windows and Split & One-off Deliveries

- On a MILP model based on arc insertion for the secondary routing problem with multiple trips, heterogeneous buses and Split & One-off deliveries.

SKILLS

Coding Python\ Matlab\ R\ C++

Language English (fluent), Chinese (Native)