Jing Wang

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EDUCATION

Rutgers University | *Ph.D. in Operations Research* Expected 2027

- Relevant Coursework: Stochastic Processes, Convex Optimization, Calculus for Finance
- Research Areas: large-scale optimization, AI/ML for decision-making under uncertainty.

Fudan University | *M.Eng. in Logistics Engineering* | *GPA: 3.84/4.0* 2019-2022

Lanzhou Jiaotong University | *B.Sc. in Mathematics* | *GPA: 3.97/4.0* 2015-2019

INDUSTRY & RESEARCH EXPERIENCE

NJ BPU Energy Fellow, Rutgers University 2024-Present

- Built a large-scale planning optimization model in Python and integrated a ReLU based neural network into the decision model, embedding predictive outputs within MILP for decision-making.
- Created a clustering pipeline to compress time/region granularity (representative days & regional groupings), cutting problem size without losing key price/congestion patterns.
- Applied decomposition (Benders/ADMM) to split investment vs. dispatch and by scenario, enabling parallel runs and rapid scenario comparison at scale.

AI Engineer, Johnson & Johnson MedTech 2022-2023

- Implemented Mask R-CNN and Transformer-based models for 3D anatomical segmentation, improving pulmonary lesion localization by 15% and integrating outputs into the Monarch platform.
- Optimized CNN-based pipelines for tumor boundary detection in CT/MRI, supporting Janssen lung cancer immunotherapy trials (e.g., PD-1/PD-L1 drug efficacy evaluation).
- Partnered with clinicians and engineers to align AI outputs with intraoperative requirements, contributing to two patent disclosures in AI-enhanced surgical navigation.

Research Collaboration with Prof. Zhu, MIT IDSS 2021-2022

- Applied AutoML and CatBoost to predict consumer demand, and used BLP & GMM estimation to analyze how image attributes influence purchasing decisions.
- Published first-author work at AISTATS 2023 on computer vision–based e-commerce demand analytics, including customized image layout visualization aligned with merchant strategies.

PUBLICATIONS

- AI-Enhanced Optimization: Embedding Neural Networks into Large-Scale Decision Models. (Dissertation in progress).
- Rodgers, M., Wang, J., et al. Harnessing Load Flexibility for Supply Chain Resilience. (Under Review, IEEE Transactions on Engineering Management).
- Wang, J., Zhu, W., et al. (2023). Demand Analytics in E-Commerce Leveraging Computer Vision Algorithms. AISTATS 2023.

AWARDS

- Alfred J. Battaglia Award Nominee, Rutgers Business School, 2025
- Top 3, A.I. Developer Challenge (iFlytek), 2024 (Team Award)
- Outstanding Graduate Award, Fudan University, 2022

SKILLS

- Optimization: Mixed-Integer Programming, Stochastic & Convex Optimization, ReLU-based modeling, ADMM, Pyomo, Gurobi, AMPL
- Programming: Python, C++, R, MATLAB, SQL, Git
- Machine Learning / AI: PyTorch, TensorFlow, CatBoost, Random Forest, Bayesian inference