Wenyu Wang

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Education experience

Shanghai University of Finance and Economics, China Sep 2021 - Present
Masters of Operations Research GPA: 3.9/4.0, Avg Score: 91.27/100

Shanghai University of Finance and Economics, China Jul 2017 - Jun 2021
Bachelors of Applied Mathematics GPA: 3.7/4.0, Rank: 2/71

Research Interests

Optimization Under uncertainty, Decision-making problems, Matrix optimization

Research Experience

Distributionally robust Optimization for Systemic Risk Analysis Jul 2023 - Present
Prof.Xueting Cui, SUFE

- Adopted a DRO model for Eisenberg-Noe model and optimized it within a Wasserstein ball.
- Used robust Wasserstein projection to measure the upper bound and confidence level of the radius.
- Carried out empirical experiments on three different datasets and analyzed the results in multiple dimensions

A Chance-constrained Model for Systemic Risk Analysis Jul 2022 - Jun 2023
Prof.Xueting Cui, SUFE

- Modified Eisenberg-Noe model with chance-constrains and proved the the exisitence of potential distributions.
- Adopted the floating body to prove the con-convexity of the problem and demostrated a counterexample.
- Carried out empirical experiments by both CVaR approach and DC approach.

Convex Relaxation and Algorithms Researches for Matrix Completion Jan 2021 - Jun 2021
Bachelor thesis

- Researched on the problems of low-rank matrices optimization and manifold optimization.
- Adopted ADMM to reconstruct low-rank matrices and sparse matrixes, and applied it to restore damaged images

Other research projects Jan 2019 - Oct 2021
Research reports, competitions etc.

- Analysis of Life Cycle and Investing Trend of Seasonal Variety Shows
- National Modeling Contest: Used forward neural networks to modify a forecast model for AQI.
- SUFE Mathematics Modeling Contest: Constructed a binary model for a TSP problem.
- American Interdisciplinary Contest in Modeling: Constructed passenger flow models through maximum flows.

Working papers

W.Y.Wang, X.T.Cui (submitted) A Chance-constrained Optimization Methodology for Systemic Risk Analysis
W.Y.Wang, X.T.Cui (in preparation) Data-Driven Wasserstein Distributionally Robust Programs for Systemic Risk Analysis

Professional Experience

Teaching Assistant Sep 2021 - Present
Courses: Linear Algebra, Probability Theory, Analytic Geometry Shanghai, China

YumChina Sep 2022 - Jan 2023
Algorithm Intern (Operations Research) Shanghai, China

- Participated in the Scheduling project, and constructed the code framework through Python and Gurobi.
- Combined the heuristic method and the optimization method to build the algorithm framework.
- This project promises the time efficiency within 30 minutes.

Fast Retailing - Uniqlo Jan 2022 - Jul 2022
Data Science Intern Shanghai, China

- Participated in the project of Inter-Store-Transfer (dispatching inventories among stores), built the fundamental framework of code and visualize the results. This project cut the cost of single-piece shipping of store moves to half.
- Constructed the early framework of the project of Warehouse-Store-Transfer.
- Participated in the project of Estimation of Customer Flow, and solved the weights' calculation through Operations Research methods.

Achievements

- **Scholarships**: 2022 and 2023 First Prize Scholarship for Postgraduates(6%), 2020 The Talon Bank Scholarship(4%), 2019 Shanghai Scholarship(2%), 2017 and 2018 First Prize of the People's Scholarship (5%)
- **Competitions**: 2019 Second Prize in SUFE Contest in Modeling(15%), 2019 Honorable Mention in American Interdisciplinary Contest in Modeling(15%)
- **Honors**: 2021 Excellent Graduate in Shanghai(4%), 2021 SUFE's Bacholar of Honor (3%), 2019 and 2020 Honor Student of SUFE(3%)

Skills and Miscellaneous

Programming languages: Python, Matlab, Java, Gurobi, MySQL, Tableau, LaTex
Languages: English (IELTS 7, GRE 332+4), Mandarin (native)
Extra-curricular activities: Leader of the debate team in School of Math (2018), won the third place in College Cup
Hobbies: Reading, Painting, Sports, Travelling