Linjia Wu

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EDUCATION

Peking University 2014 - 2018
Bachelor of Engineering, Energy and Resources Engineering GPA: 3.78/4.00
Bachelor of Economics, Economics GPA: 3.91/4.00
Stanford University 2018 - 2022
Ph.D, Operations Research

RESEARCH INTEREST

Causal Inference, Experimental Design, Stochastic Modeling, Online Learning

PUBLICATIONS

1. **Exact Simulation of the Ornstein-Uhlenbeck Driven Stochastic Volatility Model**, with Li, C. *European Journal of Operations Research*, 2019, vol 275, pp 768-779
2. **Asymptotically Optimal Control of a Centralized Dynamic Matching Market with General Utilities**, with Blanchet, J.H., Reiman, M.I., Shah, V. and Wein, L.M, accepted by *Operations Research*

WORKING PAPER

1. **Design of Switchback Experiments: A Markov Chain Perspective** with Blanchet, J.H., Johari, R., Glynn, P.
2. **Analysis of Switchback Experiments: A Time Series Modeling Approach** with Blanchet, J.H., Johari, R., Glynn, P.

WORKING EXPERIENCE

Two Sigma Investments
Quantitative Research Intern, Systematic Macro Research 2021 Summer
Project 1: Emerging Markets Analysis

- Understood emerging markets instruments through its summary statistics and correlations
- Checked the performance of trend strategy and carry strategy on emerging markets instruments

Project 2: Tail Risk Measure

- Defined "tail risk" of a portfolio and developed an approach to estimate the tail risk
- Evaluated the estimate of tail risk based on realized performance

RESEARCH EXPERIENCE

Generating and Reconstructing 3D Point Clouds via VAE
Joint work with Ye Ye

- Built an AE model to learn the compact representation of the high-dimensional point clouds
- Built a VAE model on the space of the compact representation to reconstruct and generate 3D point clouds

Reinforcement Learning in Memory MAB
Joint work with Yujia Jin, Kaidi Cao

- Extend UCB algorithms to MAB with memory and symmetric rewards

- Implement and compare UCB algorithms and Temporal Difference learning algorithms

AWARDS

Dantzig-Lieberman Operations Research Fellowship	2020
The Liu and Perkins Family Graduate Fellowship	2018
China National Scholarship (0.2%)	2017
Meritorious Winner in 2017 Mathematical Contest in Modeling	2017
First Prize in National Physical Competition for college students	2016

BOOK TRANSLATIONS

- B. Minor, J. Doppa, and D. Cook. **Learning activity predictors from sensor data: Algorithms, evaluation, and applications**. *Tsinghua University Press*. Translated by Wenguo Wu and Linjia Wu

TEATCHING EXPERICE

Teaching Assistant, Department of MS&E
Responsible for holding office hours and leading problem sessions

- MS&E 226, Fundamentals of Data Science — Fall 2019, 2020
- MS&E 125, Applied Statistics — Winter 2019
- MS&E 221, Stochastic Modelling — Spring 2022
- MS&E 121, Introduction to Stochastic Modeling — Spring 2021, Winter 2022
- MS&E 223, Simulation — Spring 2022

PROFESSIONAL SERVICES

Referee for: *Mathematics of Operations Research, Management Science*

COMPUTER SKILLS

Python, C, Mathematic, MATLAB, R, Mosek