Chenbo Shi

PhD Candidate · Enthusiast in Optimization & Data Science

chenbo.shi@uconn.edu | stan-shi | Storrs, CT

"Everthing is about optimization. Utilize data and machine learning tools to make smart decisions."

Skills

Programming Languages: Python, C++, SQL
Machine Learning Libraries: scikit-learn, PyTorch, TensorFlow, amazon Rekognition
Statistical Analysis: R, Stata
Optimization Solver: Gurobi, BARON
Web Scraping Libraries: Beautiful Soup, Selenium, Requests
Data Visualization: Tableau

Education

University of Connecticut — *Storrs, CT*

Ph.D. in Business Administration (Concentration: Operations and Information Management) — *Aug. 2019 - Dec. 2024*

Bowling Green State University — *Bowling Green, OH*

M.Sc. in Applied Statistics (Specialization: Business Analytics) — *Aug. 2017 - May. 2019*

Tongji University — *Shanghai, China*

B.Eng. in Applied Mechanics — *Sep. 2010 - May. 2014*

Selected Projects

Constraint Learning to Define Trust Regions in Predictive-Model Embedded Optimization — *Python - Math Programming*

- Developed three new model formulations, two of which outperform the best approach in literature
- Conditionally accepted at INFORMS Journal on Computing
- Presented in 3 major operation research conferences

How Does a Female Fraudster Affect Crowdfunding for Female Entrepreneurs? — *Stata - Difference-in-Difference*

- Scraped 230,000 creator profiles on Kickstarter using Requests and Beautiful Soup; Preprocessed data records of 300,000 Kickstarter projects using R; Analyzed projects launched in US to quantify the gender-differential impact of a high-profile female entrepreneur's fraud scandal
- Presented in 1 major information system conference

Optimizing the Vegetation Management Strategy with Causal Machine Learning — *Python - Causal Machine Learning*

- Applied Causal Forest model from EconML package; Built a framework that leverages the predictive power of causal machine learning and subsequently uses the predicted outage data as input for the optimization model to derive the optimal strategy of vegetation management processes.

A GCN-LSTM Model for COVID-19 Transmission in Connecticut — *Pytorch - Deep Learning*

- Applied a framework built upon Graph Convolutional Network (GCN) and Long Short-Term Memory (LSTM) to make Covid-19 case count prediction at the county level in Connecticut

Comparison of COVID-19 Transmission Behavior Between United States and China — *R - Generalized Linear Model*

- Expanded an existing COVID-19 case data set from 2 features to 15 features by appending additional data, such as weather, geographic information and demographic information; Utilized data exploratory analysis and Generalized Linear Model with R to identify key factors impacting the spreading speed of the virus 3 months after the outbreak

Work Experience

Cost Management Analyst — *Shanghai, China*

Shanghai Puhui Public Rental Housing Operation Co.Ltd — *Jun. 2014 - May. 2017*

- Analysis of contractual terms pertaining to the construction workflow; Validation of construction expenses utilizing the Glodon Cloud Cost Platform; Liaison with government entities to finalize administrative prerequisites such as construction permits and fire-control compliance certificates.

Awards & Activities

Graduate Assistantship (UCONN) — *Aug. 2019 - Present*

- Instructor of Business Information Systems (50 students); TA of Operations Management, and Spreadsheet Modeling for Business Analysis

Graduate Assistantship (BGSU) — *Aug. 2017 - May. 2019*

- TA of Regression Analysis; Graduate Student Statistical Consultant at Center for Business Analytics

Third Place Team Award, 2018 Business Analytics Case Competition (BGSU) — *Oct. 2018*

- Identifying Potential Customers of Electric Vehicles with Logistic Regression

Personal Interests

Working out (ACE Certified Personal Trainer); Playing team sports (basketball, soccer, etc.); Cycling; Skiing; Surfing