Mingqian Liu

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EDUCATION

Georgetown University, Washington, DC 20057. August 2022 – May 2024

Master of Science in Data Science and Analytics.

University of Illinois at Urbana-Champaign, Champaign, IL 61820. August 2018 – May 2022

Bachelor of Science in Economics; minor in Statistics. *GPA 3.66 / 4.0*

Awards: Dean's List in Spring 2020 and Spring 2021.

Related Courses: • Statistics Programming Methods • Nonlinear Econometric Models
• Methods of Applied Statistics • Predictive Analytics

TECHNICAL STRENGTHS

- **Programming** Python(numpy, pandas, sklearn, statsmodels), R(tidyverse, caret, glm, shiny), Git, LaTex.
- **Modeling** Linear/Logistic/Penalized Regression, Time Seires, K-Means, Support Vector Machine.
- **Software** STATA, Microsoft PowerPoint/Word/Excel, Google Colab.
- **Statistics** Hypothesis Testing, Survival Analysis, Experimental Design.

EXPERIENCE

University of Illinois at Urbana-Champaign, Champaign, IL 61820. January 2022 – May 2022

Teaching Assistant

- Holding office hour for the courses: Econometrics of Policy Evaluation, Statistics and Probabilities.

Danaher Corporation, Shanghai, China. July 2021 – September 2021

Assistant Programmer Intern

- Created the corresponding statistical tables for data classification requirements. (Excel)
- Performed data cleaning including imputation of missing values by k-nearest neighbor model. (Python)
- Applied classification models including random forest on data to help team find optimized solutions. (Python)

PROJECTS

Analysis of Student's Final Grade November 2022 – December 2022

- Analyzed and built multiple linear regression models on a student performance dataset. (R)
- Used VIF to check the collinearity and applied AIC metric to perform model selection. (R)

Time Series Analysis November 2021 – December 2021

- Performed the complete process of Time Series analysis on the electricity consumption dataset. (Python)
- Checked the linearity of the trend, and used ACF/PACF plots to check the seasonality and cycle. (Python)
- Determined the best parameters for ARIMA model and used GARCH model to reduce volatility. (Python)

Modeling Impacts of Dietary Staples Prices November 2021 – December 2021

- Built a non-linear model of the demand for cheap dietary staples of the extreme poor and used the method of moments to calibrate the parameters of the model. (Excel)
- Simulated the demand and extrapolated some predictions on changes in prices of dietary staples. (Excel)

Implementation of Dashboard March 2021 – May 2021

- Built an interactive data interface for the Illinois Jail Booking dataset. (R Shiny)
- Added dropdown menus and checkboxes for different identities in the dashboard for users to check the counts of different crime types on plots. (R Shiny)