Yizhi Hao

No 2 Xisanhuan North Road, Haidian District, Beijing, China
(+86)13521869525
19020094@bfsu.edu.cn

Education

Beijing Foreign Studies University (BFSU) – International Business School, Beijing, China Sept. 2019 – Jun. 2023

- Bachelor of Management in Information Systems and Information Management
- Member of the Honors Program - BFSU Multilingual Inter-disciplinary Talent Program (French oriented)
- Academic Ranking 1/20 GPA 3.93
- Coursework: Advanced Mathematics (97, 96), Probability Theory / Statistics (95, 99), Operations Research (95), Python (95, 99), C (90), Database (93), Micro/Macroeconomics (94, 98), Management (96), Management Information Systems (92), System Analysis and Design (94), Operations Management (98), Intro to Data Mining & Machine Learning (94)

Research Experience

Beijing Foreign Studies University Global Index 2021 – Global Intelligence Innovation Index Oct. 2020 – Present

Research Assistant *Project headed by Xiaoyu Ma (Associate Professor, BFSU) and Xiao Li (lecturer, BFSU)*

- **[R, Data Imputation]** Compared the performance of multiple imputation algorithms including mean, median, K-nearest neighbors, and Missforest imputation using VIM and Missforest package.
- **[Python, Machine Learning] Implemented** Train K-means and Random Forest model using the Scikit-learn module to yield impurity-based feature importance as weights of the index.
- **[Article Writing, Python, Data Visualization]** Completed the methodology, analysis and result part of the research article. Visualized model result using Matplotlib and Seaborn.

Voucher or Cash – Empirical Study Based on International Samples Apr. 2021 – Present

Research Assistant *Project headed by Sa Sun (lecturer, BFSU)*

- **[R, Data Imputation]** Implemented K-nearest neighbors imputation algorithm using VIM package.
- **[Python, Machine Learning]** Train Random Forest model using the Scikit-learn module to yield impurity-based feature importance, and compare it with the result of econometric analysis.

How Industrial Internet Enables Supply Chain Resilience Mar. 2021 – Present

Research Assistant *Project headed by Zhou He (Associate Professor, University of Chinese Academy of Sciences, UCAS), Mengxi Yang (Associate Professor, UCAS), and Xiaoyu Ma (Associate Professor, BFSU)*

- **[Literature Review]** Retrieved relevant papers to summarize the factors influencing supply chain resilience.
- **[Mplus, Structural Equation Modeling]** Constructed a moderated mediation model to test the hypotheses. Performed reliability and validity analysis using SPSS, Mplus, and Lavaan package from R. Used MplusAutomation package from R and Python to fit, summarize and compare model results automatically.
- **[Article Writing]** Completed the analysis and result part of the research article.

Supply Chain Resilience Management and Optimization using Agent-based Modeling Mar. 2021 – Present

Undergraduate Researcher, Project leader *National Undergraduate Innovation Training Program (provincial level)*
Project Advisor: Zhou He (Associate Professor, UCAS) and Xiaoyu Ma (Associate Professor, BFSU)

- **[Python, Modeling & Simulation]** Designed an agent-based model to simulate the supply chain network, including its structure, agent attributes and behaviors, and execution sequence of the model.

Work Experience

Lenovo, Solution & Service Group, Beijing, China Jul. 2022 – Oct. 2022

Data Analyst Intern

- **[Python, Optimization]** Developed demo for the Surface Mount Technology Optimization system. Constructed multi-objective mixed-integer programming models using GLPK solver in the Cvxpy module to optimize the number of PCB panels produced. Code the demo (Cvxpy, GLPK). Presented solutions.
- **[Python, C, Optimization, Document Writing]** Assisted in the development of MARS (a chipset inventory planning

system). Constructed multi-objective linear programming models using GLPK solver in Cvxpy module to calculate chipsets shortages. Wrote project documentation. Performed code reivew and system testing.

- **[Python, Optimization]** Developed demo for the Advanced Planning System. Modeled the problem into a multi-objective mixed-integer programming model, similar to the vehicle routing problem and parallel machine scheduling problem. Developed code to implement the genetic algorithm using Geatpy module.
- **[Confluence, Document Writing]**

Beijing Daxing International Airport Terminal, Administration Dept., Beijing, China Oct. 2022 – Prensent

Data Analyst Intern

- **[Python, Machine Learning]** Assisted in the development of the system for predicting passenger check-in time. Preprocessed data. Trained classification model. Tuned hyper-parameters. Compared model performance.

Awards

Beijing Foreign Studies University First-class Scholarship **Dec.2020**

Beijing Foreign Studies University Student Merit Award **Dec.2020**

Beijing Foreign Studies University First-class Scholarship **Dec.2021**

Beijing Foreign Studies University Student Merit Award **Dec.2021**

China Youth Cup Mathematical Contest in Modeling, Undergraduate Group, Second Prize **May.2022**

Team Leader

- **[Python]** Implemented Leslie Matrix Model to predict the demographic trends in China over the coming decade and assessed the effect of China's Three-child policy. Analyzed the relationship between parental pressure and fertility preference using the regression model and the data from the China Family Panel Studies (CFPS), and assess the impact of the "double reduction" policy (reducing the academic burden of compulsory education students).

Beijing Foreign Studies University Second-class Scholarship **Dec.2022**

Beijing Foreign Studies University Student Merit Award **Dec.2022**

Activities and Service

- Member of the Academic Department, BFSU International Business School Student Union Sept. 2019 – Aug. 2020
- Volunteer, One-on-one Tutoring Program, China-Dolls Center for Rare Disorders Mar. 2021 – Jul. 2021
- Volunteer, One-on-one Tutoring Program, Education Aid Program in Mabian Yi Autonomous County Mar. 2022 – Jul. 2022

Skills

- **Programming and Software:** Latex, MS office, Python, C, SPSS, Mplus, R
- **English (fluent)：** GRE 327 IELTS 8 (all subsection above 7), TOFEL 109, CET-4 634, CET-6 631, TEM-4 83 (Excellent)
- **French (beginner):** Basic reading, writing, and oral skills.