Jingxin Mao (Victoria)

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EDUCATION

Cornell University, Ithaca, NY   Expected May 2022
Master of Engineering in Operations Research with Data Analytics Concentration
Courses: Optimization; Stochastic Calculus; Service Systems Modeling; Big Data; Applied Time Series Analysis
Rice University, Houston, TX   May 2021
Bachelor of Arts in Statistics and Mathematical Economic Analysis
Courses: Econometrics; Market Models; Data science models; Accounting; Corporate finance; Machine Learning
Competition: 1st place in Trading Competition in Market Models course

EXPERIENCE

CICC Wealth Management, Shenzhen, China   June 2021 – Aug 2021
Data Analyst Intern
- Extracted and merged data by SQL queries from multiple databases, aggregated and manipulated in Excel through pivot table, conducted text analytics and visualized in Tableau dashboards.
- Administered data cleaning of product managers' and financial custodians' data and assisted private equity investors in purchasing private placement stocks.
- Conducted detailed research on private equity regulations and the overall performance of the industry; presented research findings to senior principals for evaluating potential shifts in work focus.
- Compared CICC's newly released financial products with other competitors'; summarized the strength of the products and designed advertising posters.

Lions Financial, New York, NY   May 2021 - June 2021
Intern
- Performed exploratory data analysis of the Airbnb in New York City dataset through data visualizations in Pandas; created mixed effects model to analyze the factors affecting price of listings; conducted a classification, regression and PCA analysis.
- Analyzed the price listings of a property in New York City in the past 5 years and built a seasonal Arima model in R to predict prices in 2021.
- Conducted financial statement analysis of Norwegian Cruise Line Corporation by calculating EBITDA ratio, EBIT ratio, working capital and P/E ratio, providing investment recommendations in the presentation.

Data to Knowledge Lab, Rice University, Houston TX   Aug 2020 – Nov 2020
Data Science Consultant
- Assisted a client in building a generalized additive model for future costs prediction based on the company's past sales data; developed prototype model in Excel and used past demand to retrospectively simulate forecasts, for better demonstrating different factors' effect on costs.
- Supported a Sociology researcher in applying machine learning algorithms on the classification of Los Angeles crime data, such as KNN and Random Forest algorithms.

RELEVANT PROJECTS

Road Traffic Injury Analysis, Cornell University, Ithaca, NY   Aug 2021 – Nov 2021
- Administered data cleaning by merging tables, changing categorical variables into one-hot encoding, imputing missing values and rebalancing the training data with oversampling.
- Built machine learning models (tree-based models and multi-class logistic regression) and applied feature selection, feature transformation and parameter tuning to find the most important features.
- Conducted feature engineering and model selection using metrics such as Precision, Recall and AUROC.

Houston Fire Department Fleet Reorganization, Rice University, Houston, TX   Feb 2021 - May 2021
- Designed a data science pipeline to analyze response metrics specifying incidents data from 2019 - 2020, embodying measurements such as unit availability and vehicle mismatches.
- Wrote reusable Python code block to performed data simulation using different response fleet profiles.
- Conducted response fleet profile output optimization by greedy search algorithm in Python; provided actionable insights that can improve the unit availability by 12.8% and decrease the mismatch rate by 49%.

SKILLS
- **Software/Computing**: SQL, Python, R, Tableau, Stata, Matlab, Microsoft Office and Adobe Premiere