Jinyan (Sammy) Huang

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SKILLS

- Proficient in **Python** (Pandas, NumPy, Matplotlib), MySQL, R-Studio, Stata, Power BI, and Excel
- Advanced Risk Analytics skills, data cleaning/analysis, model building, visualization, **Machine Learning** (ML)
- Strong communication/leadership skills**,** quick-learner, team-player, detail-oriented, interested in **risk & regulation**

EDUCATION

Columbia University (Master's degree of Science) - New York, NY ***09/2022 - 01/2024 (expected)***

- M.S in Enterprise Risk Management
- Relevant Coursework: Credit Risk, Financial Risk, and Operational Risk Management

University of California San Diego (Bachelor's degree of Arts) - San Diego, CA ***09/2020 - 09/2022***

- B.A in Economics
- Relevant Coursework: Financial Accounting, Econometrics, Business Information Systems, Statistical Methods

WORK EXPERIENCE

Columbia University - New York, NY ***05/2023 - 07/2023***

Research Assistant for Credit Risk Management Course

- Used Python to predict the **probability of default** (**PD**) on **Home Equity Line of Credit (HELOC)** loans by performing Linear Regression, Logistic Regression, and Machine Learning models such as Decision Tree and Random Forest Models to predict customer behavior.
- Developed and trained models to make predictions, achieving high performance metrics: 85% **Recall**, 90% **Precision**, 95% **F1-score**, and 98% **AUC**. Utilized **ROC curve** analysis for accurate model assessment and future enhancements.
- Presented the results to the class/professor and collaborated with the team for future research enhancement.
- Conducted research on regulatory frameworks, ensuring model compliance with standards such as **Model Risk** (SR 11.7), Basel III, Stress Testing (CCAR), and CECL.

Fan-Fan Services - San Diego, CA ***07/2022 - 12/2022***

Market Analyst and Operational Management

- Led market analytics initiatives and acted as the primary business analyst for multiple business areas such as sales, product development, and customer experience, resulting in a 15% increase in targeted marketing efficiency.
- Designed and collected quantitative (clients and market) and qualitative (questionnaires) analytics data, processing and querying the datasets using **SQL** before visualizing results in **Python** using **Matplotlib** to illustrate clients' product preferences.
- Analyzed pricing trends in Python, including seasonal, demand-based fluctuations, and variations in price ranges among products and services and conducted A/B testing on new product features, which contributed to a 20% rise in user engagement.
- Created a **Power BI** report for managers to review client utility and clients' pricing preferences.
- Developed a customer loyalty program and led automatic email marketing initiatives, leading to a 10% increase in new customer acquisition.

PROJECTS

Meta's Value-Based Enterprise Risk Management Model ***01/2023 - 04/2023***

- Developed **Excel**-based Financial Risk Management Model for Meta, consolidating historical annual report data to analyze business **KPIs** and using **Time Series** model to predict financial trends over next 20 years.
- Estimated Meta's new product performance using **Linear Regression** and **Bass Diffusion models** to establish company baselines and evaluate change impacts through multiple simulations of key risk scenarios.
- Created visualizations to communicate insights derived from data exploration and models.

Covid-19 Confirmed Cases and Deaths Prediction Model ***09/2022 - 12/2022***

- Constructed time series analysis with **Arima model** using **SQL** and **Python** to predict country-level Covid-19 vaccination population in a 3-year time window.
- Achieved high model performance through model comparison and validation process based on evaluation metrics.
- Conducted data collection, pre-processing, feature engineering, model tuning and model validation.
- Developed a dynamic **Power BI** dashboard to report and present data patterns and model results.