Pu Yuan

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PROFILE SUMMARY

- A diligent data expert with deep understanding of financial risk management, proficient in Python (Pandas, NumPy, Matplotlib, Scikit-learn), SQL, VBA, R, MATLAB, and Tableau for in-depth data analysis and visualization.

- Well-versed in data processing, data modeling, feature engineering, risk modeling, machine learning, and translating complex technical details. Skilled in developing and representing insights to diverse audiences; Strong interpersonal skills honed through client interactions and cross-functional team collaborations during internships.

- Secured 1st runner-up positions in both the Global Social Entrepreneurship Competition and the Financial Planning Competition at Morgan Stanley Wealth Management, demonstrating strong financial acumen and entrepreneurial spirit.

EDUCATION

University of Toronto   **Sept 2021 – May 2024**
Bachelor of Science, Double major in Economics and Statistics   *Toronto, ON*

WORKING EXPERIENCE

Data Consultant Intern, BCG Shanghai, Shanghai, China   **Jul 2023 – Present**

- Managed project planning based on demand priority to mitigate timeline risk and ensure quality in multiple data-driven projects, aligning with client objectives for timely delivery.

- Analyzed the Aftermarket Automotive Industry using 10,000+ data points, leveraging Random Forest and Gradient Boosting for insights and tailoring strategies with demographic and behavioral segmentation to predict market trends.

- Enhanced business intelligence reporting by developing interactive dashboards (Tableau) to visualize sales, inventory, and customer behavior data, enabling clients to make informed decisions of aftermarket product offerings and pricing strategies.

- Assisted in preparing and presenting final recommendations to clients, highlighting data-driven strategies to enhance their market presence and profitability in the aftermarket automotive sector.

Quantitative Analyst Intern, Citibank, Shanghai, China   **May 2023 – Jul 2023**

- Collaborated with risk management team, developed a robust credit risk modeling framework for a loan portfolio. Employed the Random Forest algorithm using engineered features, such as counterparties' working capital, liquidity and solvency ratios, and earnings quality, to predict potential default. Achieving a 90% accuracy rate and reducing loan defaults by 8%.

- Conducted credit risk assessment by incorporating LGD, PD and EAD to Monte Carlo simulation model to assess the default probability. Generated 10,000 scenarios for loan expected loss. Calculated VaR of loan portfolio with extensive backtesting.

- Worked closely with various stakeholders to translate business requirements into detailed functional specifications, led the workflow management and process improvement by standardizing data collection and processing procedures.

Data Analyst Intern, Yanc Data Consulting Firm, Toronto, ON   **Jul 2021 – Sept 2021**

- Spearheaded the development of a logistic regression-based predictive machine learning model to forecast default probabilities for retail demand loans; Cleaned and transformed over 500k historical loan datasets for training and validation.

- Identified and engineered relevant features that significantly contributed to the predictive power of the model, including borrower's credit history, income level, and loan-to-value ratio.

- Conducted rigorous model evaluation using techniques such as cross-validation and ROC curve analysis, achieving 95% model accuracy, to ensure the model's robustness and reliability in different scenarios.

PROJECT & RESEARCH EXPERIENCE

COVID19 Pandemic and the Stock Markets Efficiency, University of Toronto   **May 2023 – Jun 2023**

- Examined the return and volatility of S&P500 constituents during the pandemic; combined the result with an event tracker to conduct market efficiency hypothesis testing; analyzed the market risk factors and explored anomalies in the EMH theory.

- Studied derivative pricing through Structured Binomial Tree and Black-Scholes Model. Calculated the implied volatility.

Project Research Intern with Shenshen Yang Ph.D. Candidate, University of Texas, Austin   **Aug 2020 – Apr 2021**

- Co-authored the essay "A Quantitative Economic Analysis on the Relationship between Color Trends and Changes in Mental Health Conditions", focusing on the influence of color trends on mental health.

- Leveraged Python for data preprocessing, statistical analysis, and visualization to study the link between color trends and mental health, uncovering key insights into how color preferences influence psychological well-being.