Yingbei Weng

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Education

- **Xi'an Jiaotong-Liverpool University** — Suzhou, Jiangsu, PRC
  Bachelor of Economics and Finance — *Fall 2021 – Summer 2025*
  - **GPA:** 3.8/4.0
  - **Core Modules:** Mathematical Economics, Linear Algebra(91), Multivariable Calculus(96), Maths for Economics and Business(81), Intermediate Microeconomics, Corporate Finance, Dynamic Methods in Economics, Intermediate Macroeconomics, Econometrics: Theory and Applications
- **Liverpool University** — Liverpool, UK
  Bachelor of Economics and Finance(joint program) — *Fall 2021 – Summer 2025*

Publication

[1] **Yingbei Weng**, Research Advanced on the Influence of Green Credit Policy on Companies: A Case Study of Industrial Structure, Firm Performance, and Response Measures in *the* 2^{nd} *International Conference on Financial Technology and Business Analysis (lCFTBA 2023)*, Oxford, UK, 2023. [Paper]

Research Experience

- **Market Opportunity and Profitability Analysis for Apple in Greater China**
  Xi'an Jiaotong-Liverpool University — *Oct. 2023 - Apr. 2024*
  - **SWOT Analysis for Market Opportunities and Risks:** Conducted a SWOT analysis to assess Apple's market opportunities and risks in Greater China, focusing on key metrics such as brand loyalty and competitive positioning. Evaluated the projected sales impact of new product launches and their contribution to profit growth through scenario analysis;
  - **Value Chain and Supply Chain Efficiency Analysis:** Used Porter's Value Chain Analysis and Supply Chain Optimization Modeling to evaluate production and end-sales processes for different product lines, identifying cost-saving opportunities in sourcing, production, and distribution that contribute to improved profitability;
  - **Stock Price Forecasting with LSTM:** Integrated historical stock data with key financial metrics (e.g., Return on Equity, revenue growth, P/E ratio) and technical indicators using an LSTM neural network model to predict Apple's stock price, achieving high accuracy when compared to actual quarterly financial data;
  - **Sales Strategy Recommendations for Market Expansion:** Proposed strategies such as opening new flagship stores in high-consumption areas to enhance brand visibility, expanding online sales channels, and engaging in government-backed consumer subsidy programs to increase accessibility and brand strength in mass-market regions.
- **Advanced Financial Technology Solutions for Green Investment Analysis**
  Columbia University, advisor: Alexei Chekhlov — *Apr. 2023 - June 2023*
  - **Impact Analysis of Green Credit Policy:** Conducted an in-depth analysis of the Green Credit Policy (GCP) and its effects on industrial structure and firm performance, demonstrating a positive correlation between GCP implementation and sustainable business practices;
  - **Empirical Research and Theoretical Frameworks:** Utilized empirical data and theoretical frameworks to assess the impact of GCP on corporate investment decisions, green innovation, and strategic responses, contributing to the understanding of eco-friendly practices in the business sector;
  - **Dual Effects on Corporate Practices:** Collaborated in a research study that revealed the dual effects of GCP on companies, emphasizing its role in promoting industrial upgrading while identifying challenges faced by firms with subpar environmental practices.

Internship Experience

- **Development of a Financial Market Prediction Model**
  Data Scientist@Wanlian Securities Co.,Ltd — *June 2024 – Sep. 2024*
  - **Data Processing and Model Building:** Developed a quantitative model based on historical data to analyze stock market trends and predict short-term returns, employing Python and R for data cleaning, processing, and modeling;
  - **Optimization and Parameter Tuning:** Utilized multifactor analysis to optimize model parameters, enhancing back-testing accuracy and offering data-driven investment insights;
  - **Performance Improvement and Predictive Accuracy:** Successfully increased the model's prediction accuracy to 92.4%, significantly improving the reliability of forecasts and supporting data-backed investment decision-making.
- **Credit Risk Assessment and Calibration Using Multi-Factor Models**
  International Investment Analyst@China Minsheng Banking Corp., Ltd. — *June 2023 – Dec. 2023*
  - **Project Objective:** Developed and optimized a credit risk model for accurately assessing borrowers' Probability of Default (PD) and expected loss upon default (Loss Given Default, LGD).;

- **Modeling Approach:** Utilized a Logistic Regression model to construct a PD scoring system, calibrated with historical default data to ensure robustness across economic cycles. Enhanced predictive accuracy by supplementing the model with Generalized Linear Models and Random Forest;
- **Data Processing:** Selected key borrower characteristics (e.g., income level, credit score, debt-to-income ratio), cleaned and processed missing data, and applied Principal Component Analysis (PCA) to reduce noise and improve model clarity;
- **Model Performance:** Achieved an 89% accuracy in predicting default probabilities, effectively identifying high-risk customer segments and reducing credit losses by approximately 15% over the following six months, significantly decreasing the bank's exposure to risk.

- **Client Segmentation and Dynamic Investment Strategy**
  Investment advisor intern@Bank of China (BoC) *May 2022 - Sep.2022*
  - **Project Objective:** Applied data-driven segmentation for high-net-worth clients using K-means clustering to identify investment preferences and provide tailored, dynamic investment recommendations;
  - **Methodology and Modeling:** Classified clients based on asset size, transaction frequency, and risk tolerance into conservative, growth-oriented, and high-risk groups, and introduced time series models to track portfolio changes and used anomaly detection (Isolation Forest) to identify unusual investment behavior, adjusting recommendations based on these insights.;
  - **Results:** Personalized portfolio strategies increased overall returns by 12%, with conservative clients receiving stable-income options, growth-oriented clients allocated balanced assets, and high-risk clients offered high-yield investments.

Skills

- **Programming**: C/C++, Python(Numpy, Pandas, PyTorch)
- **Tools**: SPSS, Stata, LaTeX, MS Office