

# Qinyang Huang

Raleigh, NC

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## Education

**Global Association of Risk Professionals(GARP)**

May 2021

FRM Program - Passed FRM Exam Part I

**North Carolina State University(#4 by Risk.net)**

Raleigh, NC

Master of Financial Mathematics(GPA:4.0/4.0)

December 2024

**University of Shanghai for Science and Technology**

Shanghai, China

Bachelor of Business Administration(GPA: 3.59/4.0)

July 2022

## Technical Skills

*Programming:* Python, SQL, R

*Technologies:* Tableau, Bloomberg Terminal, Microsoft Office Suite: Excel, Word, PowerPoint, Outlook

*Packages:* Pandas, SciPy, Numpy, Scikit-Learn, Matplotlib, mlxtend, Plotly

## Coursework

Financial Risk Analysis, Machine Learning, Financial Data Analysis with Python & R, Monte Carlo Methods for Financial Math, Statistical Inference, Options and Derivatives Pricing, Linear Algebra, Stochastic Calculus, SQL for Data Science

## Project Experience

**Market Risk Analysis of American Express(AXP) and S&P 500 ETF(SPY)**

February 2024 - April 2024

- Extracted daily closing prices for AXP and SPY(01/01/2021-03/08/2024) using Python and yfinance.
- Implemented GARCH(1,1) model for AXP and SPY to enhance accuracy in volatility estimation; validated the model through Log-Likelihood, AIC, BIC, and p-values.
- Analyzed one-day 99% Value at Risk(VaR) and Expected Shortfall (ES) for AXP, SPY and their portfolio via historical simulation, evaluating risk in extreme market conditions.
- Utilized Python to compute the Risk-Adjusted Return on Capital (RAROC) for AXP, SPY, and their portfolio.

**Assessing Credit Risk & Predicting Loan Defaults with XGBoost Model**

August 2023 - December 2023

- Utilized the Freddie Mac single-family loan dataset encompassing 500,137 mortgage loans with 27 features (2000-2018), applying comprehensive data processing and feature selection techniques, including forward feature selection and LASSO.
- Addressed data imbalance with SMOTE and converted categorical data into booleans via one-hot encoding, ensuring data quality for model training.
- Implemented and compared multiple machine learning models (Logistic Regression, Random Forest, XGBoost), utilizing hyperparameter tuning to enhance accuracy effectively.
- Achieved significant predictive performance, evidenced by an F-1 score of 0.93 and an AUC-ROC score of 0.98, demonstrating the model's robustness in predicting loan defaults accurately.

## Work Experience

**Data Analyst Intern, Asset Management Department**

Shanghai, China

China Fortune Securities Company Limited

September 2021 - November 2021

- Extracted major macroeconomic indicators from the Wind Database, and performed data cleaning, transformation, data quality check, and exploratory data analysis.
- Performed in-depth data analysis, using linear regression models in Python to derive insights from large datasets for forecasting economic trends and impacts.
- Regularly reviewed pertinent financial news and distilled insights into concise summaries to keep the team updated on significant financial news.