YIFAN (MICHAEL) WANG

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EDUCATION

Expected 12/23 **NEW YORK UNIVERSITY** New York, NY
The Courant Institute of Mathematical Sciences
M.S. in Mathematics in Finance

- ***Expected Coursework:*** Black-Scholes & Greeks, stochastic processes, object-oriented programming (Java), penalized regression and time series, decision trees, machine learning

09/20 - 05/22 **COLUMBIA UNIVERSITY** New York, NY
B.S. in Applied Mathematics

- ***Coursework:*** linear regression, partial differential equations, statistical inference, Fourier analysis, modern algebra, numerical analysis, CAPM model, advanced linear algebra, options

09/17 - 05/22 **DICKINSON COLLEGE** Carlisle, PA
B.A. in Mathematics

- ***Honors*:** Major Honor Society, Dean's List, Pi Mu Epsilon Honor Society

EXPERIENCE

06/22 - 07/22 **DEUTSCHE BANK** Shanghai, China
Capstone Project, Quantitative Research

- Conducted portfolio optimization on index ETFs and gold using mean-variance, Black-Litterman, and risk parity in Python; simulated asset weights to calculate efficient frontier
- Extracted pricing from data APIs using Python; performed data cleaning and transformation
- Backtested portfolio performance based on risk parity method that auto-adjusted its weights monthly; built functions to calculate annualized return, volatility, Sharpe ratio, max drawdown

05/21 - 08/21 **DELOITTE CONSULTING CHINA** Shanghai, China
Finance & Performance Consulting Intern

- Developed talent scoring framework based on machine learning models such as linear regression, random forest, and gradient boosting decision tree in Python
- Performed data collection, cleaning, and transformation of past employee evaluation data; conducted feature engineering based on dimensions such as leadership and technical skills
- Created interactive data visualization dashboard in Tableau to perform comparative analyses

PROJECTS

03/22 - 05/22 **COLUMBIA UNIVERSITY** New York, NY
Machine Learning Driven Sector Return Prediction (Python)

- Built machine learning models such as linear regression, ridge regression, and random forest to predict returns of sector ETFs such as US Technology and Financials iShares
- Constructed features based on macro factors (e.g., CPI) and sector average fundamental ratios

09/21 - 12/21 **Stock Valuation Based on DCF and Black-Scholes Model (Python)**

- Built web crawler to collect price and financial statement data from Yahoo Finance
- Applied DCF model with growth-rate assumptions in high- and stable-growth periods; performed Monte Carlo simulations of company's value and stock prices through 10K+ paths
- Calculated intrinsic stock value using weighted average result from DCF, MCS, and B-S models

02/21 - 05/21 **Future Arbitrage Using Ornstein-Uhlenbeck Model (MATLAB)**

- Crafted Ornstein-Uhlenbeck mean version model to predict spot-to-future price ratio for gold
- Back-tested arbitrage trading strategy using ratio to test model's efficacy

COMPUTATIONAL SKILLS / OTHER

Programming Languages: Python (NumPy, Pandas, Sklearn, SciPy), SQL, Java, R, MATLAB
Languages: English (fluent); Mandarin (native)