Prakhyath Shivappa

New York (flexible) 551-344-5968 prakhyathshivappa@gmail.com linkedin.com/in/prakhyath-shivappa

SUMMARY

Detail-oriented Financial Mathematics graduate with a strong foundation in quantitative analysis and statistical modeling seeking to leverage my experience in risk analysis at a leading financial firm. Proven track record of risk analysis and automation, with a keen interest in applying these skills across various platforms to drive profitability and efficiency.

EXPERIENCE

Stevens Institute of Technology September 2022 – May 2023
Teaching Assistant Hoboken, NJ

- Demonstrated expertise in financial data analysis, data extraction, and market research using Bloomberg tools by mentoring 20+ Bloomberg and Thomson Reuters students.
- Enhanced leadership and mentorship by guiding students, resulting in a 30% improvement in project completion rates.

Ebullient Securities Pvt Gurugram, India
Quantitative Research Analyst July 2019 – August 2022

- Collaborated with algorithmic strategy teams and vendor data handlers to develop an in-house trading system, boosting trading efficiency by 30% and improving execution accuracy by 25%.
- Backtested long-short multi-factor strategies using Omega Research Software and Python with historical ETF and currency data, resulting in a 20% increase in alpha, optimized portfolio performance, and managed extensive data.
- Managed a diversified portfolio worth USD 1.5 million, comprising stocks, derivatives, and ETFs, and implemented risk management strategies that minimized losses and maximized returns.
- Presented data-driven insights to C-level executives, directly influencing strategic decision-making.
- Supervised and mentored 4 interns, enhancing their skills in extracting and analyzing financial market data from global reports using SQL, resulting in a 20% improvement in data accuracy.

EDUCATION

Stevens Institute of Technology Hoboken, NJ
Master ofcs Science in Financial Mathematics (STEM|GPA: 3.84/4.0) September 2022 – May 2024
Relevant Coursework : Portfolio Optimization, Financial Derivatives (Futures, Forward, Swaps, and Option Pricing), Credit Risk Modelling, Yield Curve, Duration, Convexity, Quantitative Risk Management (VaR, Expected Shortfall, SR 11-7, SR 15-18, Basel III, CCAR, Stress Testing), Mathematical Finance (Monte Carlo Simulation, Black-Scholes, Binomial Option Pricing, and Stochastic Processes.

PES University Bengaluru, India
Bachelor of Engineering in Mechanical Engineering June 2015 – June 2019
Relevant Coursework : Management and Engineering Economics, Financial Management, Operations Research.

SKILLS

Technical Tools: C++, Python, R, MATLAB, SQL, HTML/CSS, JavaScript, VBA and Bloomberg.
Certification: Bloomberg Terminal, Algorithmic Trading - EPAT , Graduate Peer Mentor, Fire Safety, Ashtanga Yoga.

PROJECTS

QWIM (Capstone Project with Bank of America) | Python, CVXPY, SciPy February 2024 – May 2024

- Engineered and assessed three advanced portfolio construction models using network analysis, negative skewness, and machine learning techniques, resulting in a 5% improvement in investment decision-making processes.
- Optimized portfolio performance, significantly boosting key metrics in portfolio management such as risk-adjusted return, diversification, and dynamic asset allocation.
- Achieved annualized returns of 10.78% for machine learning, 9.34% for negative skewness, and 6.07% for network analysis, markedly exceeding the minimum variance benchmark of 4.67%.

Realized Volatility Prediction | Python, scikit-learn, Kaggle, glob, joblib, Order book March 2023 – April 2023

- Crafted predictive models for short-term stock volatility, delivering insights into expected price fluctuations over 10-minute periods, and achieved an RMSPE of 0.341 across diverse sectors during evaluation.
- Utilized Naive Bayes classification, integrating features like price trends, trading volume, and market indicators, to provide crucial insights for pricing options and other financial products.

Next Day Trend Prediction | Python, TA-Lib, yfinance September 2023 – December 2023

- Developed and fine-tuned classification algorithms including Decision Tree, Random Forest, AdaBoost, Gradient Boosting, and SVM, achieving the highest test accuracy of 68% with the SVM model.
- Analyzed feature importance, identifying OBV (0.306), RSI (0.254), WMA (0.242), and ATR (0.197) with Gradient Boosting Classifier achieved MCC score of 0.0074 and test error of 0.5087 while evaluating model performance.
- Compared model-generated returns with actual buy-and-hold returns, demonstrating model effectiveness while noting a 50.87% test error rate and highlighting the associated drawdown risks.