PRAKHYATH SHIVAPPA

🏠 313 Pine Street, Jersey City, NJ 📞 551-344-5968 ✉ prakhyathshivappa@gmail.com in linkedin.com/in/prakhyath-shivappa

EDUCATION

Stevens Institute of Technology — Hoboken, NJ
Master of Science in Financial Engineering (STEM|GPA: 3.84/4.0) — September 2022 – May 2024
Academic Honors: Merit-based scholarship, Peer mentor leadership, Graduate Assistantship

PESIT — Bengaluru, India
Bachelor of Engineering in Mechanical Engineering — June 2015 – June 2019

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 — October 2021 – June 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%.
- 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.
- 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.

Research Analyst Trainee — September 2020 – August 2021
- Assisted senior analyst with research of trading algorithms, contributing to the development of advanced strategies.
- 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.
- Analyzed how different parameters affect portfolio performance and wrote detailed research reports for management, providing actionable insights and recommendations.

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.

SKILLS

Technical Tools: C++, Python, R, MATLAB, SQL, HTML/CSS, JavaScript, VBA and Bloomberg Terminal
Computational Finance: Numerical Pricing Methods, Portfolio Optimization, Risk Models, Hedge Fund strategies
Mathematics: Stochastic Calculus, Machine Learning Algorithms, Regression and Time series models
Certification: Bloomberg Terminal, Algorithmic Trading - EPAT , Graduate Peer Mentor, Fire Safety and Fighting

LEADERSHIP

Stevens Institute of Technology — Hoboken, NJ
Peer Mentor — September 2023 – May 2024
- Mentored and led a team of 5 students, boosting performance and success through goal setting and achievement.
- Organized events for 30+ participants, enhancing engagement and satisfaction by creating an inclusive environment.