


Rishabh Rawat

Quantitative Analyst | Data Scientist

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SUMMARY

Results-driven Quantitative Analytics professional with a Master's degree in Financial Analytics, expertise in Machine Learning, and 5+ years of experience in financial data analysis and investment strategies. Proficient in R, Python, and SQL with a strong background in statistical analysis, risk management, portfolio optimization, and delivering impactful solutions for the financial industry.

EDUCATION

Stevens Institute of Technology, Hoboken, NJ

Aug 2021 – May 2023

- Master of Science in Financial Analytics (Quantitative Finance and Financial Engineering Program)

GPA: 3.80/4.00

Honors: Provost's master's Fellowship

- Graduate Certificate in Machine Learning in Finance

GPA: 3.75/4.00

Coursework: Financial Risk Management, Financial Data Science, Data Visualization & apps, Statistical Learning, Financial Technology, Quantitative Hedge Fund Strategies, Probability Theory, Applied Statistics in Finance, Time Series, Bloomberg, Database Design, ML

CFA® Program participant, CFA Institute (Recipient of CFA Institute Student Scholarship)

Rajasthan Technical University

2012 - 2016

- Bachelor of Technology - Computer Science and Engineering

CGPA: 7.58/10.00

SKILLS

- Programming:** R, Python, C++, SQL, Java, ASP, Excel, HTML
- Certifications:** Bloomberg Market Concepts, Quantitative Analyst with R, Data Science in Python
- Software & Tools:** Bloomberg Terminal, FactSet, RStudio, Jupyter, Eclipse, Anaconda Spyder, Tableau, Alteryx, Power BI
- Statistics/ML:** Time Series (ARIMA, GARCH), Regression, Clustering, Monte-Carlo, NLP, RF, DT, SVM, RNN, LSTM, MLP
- Libraries:** NumPy, Pandas, Matplotlib, Seaborn, SciPy, Scikit-learn, TensorFlow, Keras, PyPortfolioOpt, Quantmod

EXPERIENCE

Quantitative Researcher | Global AI - Wall St, New York

Sept 2023 – Present

- Engineer a model predicting Lithium trading indicators by aggregating diverse data sources (X, News, key indicators, indices, and global themes). Apply advanced Machine Learning algorithms and optimization techniques to amplify analysis precision.
- Design and implement a robust NLP pipeline, collecting and processing 8TB of data from the GDELT database. Further, conduct rigorous data cleaning and utilize advanced visualization techniques to distill and comprehend country/region-specific trends.
- Deploy Time Series models (AR, MA, ARIMA, GARCH) to uncover patterns, assess predictive power, and predict future volatility.
- Employ Unsmoothing Time Series measures to regenerate lost trends in irregular data, further enhancing model accuracy.

Venture Capital Analyst | Serval Ventures – Broadway St, New York

May 2022 – July 2022

- Performed Time Series Analysis (ARIMA) in R for financial forecasting of startup ride-hailing app 'FairFare'.
- Deployed Python for clustering analysis to optimize cab pickup and drop-off hotspots for 'FairFare'.
- Performed EDA and quantitative analysis on climate datasets, for Robotics AI-Perception Engine startup 'RGO'.

Data Analyst | Neutech (Financial Data Science)

June 2017 - July 2021

- Monitored different sectors and maintained constant coverage of industry-related news, market trends, and developments.
- Developed high-yield investment strategies through Monte-Carlo simulations, portfolio risk management, and statistics.
- Conducted meticulous analysis of equities price movements, volume trends, and sector performance using Bloomberg.
- Utilized data visualization tools to create informative charts and graphs, to easily understand the market's performance.
- Assembled historical financial models and conducted fundamental, statistical, and industry analyses on companies.
- Maintained databases of market data, ensuring data accuracy, and identifying and resolving data discrepancies.

SELECTED ACHIEVEMENT

- Achieved **11th rank Globally**, **6th rank in North America**, and **1st rank in Stevens**, out of 488 teams in **Bloomberg Global Trading Challenge 2021**, generating **24.6% returns in 7 weeks**.

ACADEMIC PROJECTS [\[View\]](#)

- Portfolio Construction and Optimization using Robo-advisor / Python, R** Fall 2022
Founded an algorithm-driven investment service for asset selection, allocation, and portfolio rebalancing among different financial instruments. Created portfolios using Machine Learning (LSTM, MLP), Hierarchical Risk, and Market Weight concepts. Utilized Monte Carlo simulations to compute different risk portfolios. Applied sectoral and asset constraints, low covariances for portfolio balancing. Used max Sharpe, Volatility, and Value-at-risk optimizations for risk management.
- Financial News Sentiment Analysis using NLP / Python** Fall 2022
Developed an algorithm that quickly parses the financial news from websites and Twitter accounts to calculate market sentiment. Visualized the trending news keywords driving different stocks or overall index sentiment using word clouds. Predicted the relationship between SPY daily log returns and the calculated sentiment using various ML models.
- Quantitative Equity Long-Short Strategy / R, Excel** Spring 2022
Created a momentum-based equity strategy in R and Excel to generate greater risk-adjusted returns. Used each stock's location in the Bollinger band with respect to other Dow 30 stocks' locations to rank each equity monthly. Further initiated monthly long positions in the top ten stocks and short positions in the bottom five stocks.

MINI PROJECTS

- Google Stock Movement Prediction using Long short-term memory (LSTM) artificial neural network.
- Berkshire Hathaway Inc. Stock Analysis and its investing strategy interpretation using K-means clustering.
- S&P Credit Rating Prediction by developing an ensemble Machine Learning algorithm to achieve 98% test accuracy.