Aman Yadav

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PROFILE SUMMARY

Quantitative Researcher & Derivative Analyst with expertise in derivatives markets, statistical arbitrage, and systematic trading strategies. Skilled in developing, backtesting, and deploying quantitative models using Python, financial data APIs, and advanced statistical methods. Experienced in risk management, market microstructure analysis, and portfolio optimization. Currently pursuing advanced studies in Financial Engineering with a strong foundation in econometrics, time series analysis, and machine learning for finance.

CORE SKILLS

- Programming & Data: Python (NumPy, Pandas, scikit-learn, Backtrader, pandas-ta), SQL
- Quantitative Methods: Time Series Analysis, Statistical Arbitrage, Options Pricing Models, Econometrics, Factor Modeling
- Trading & Finance: Derivatives (Futures & Options), Market Microstructure, Risk Management, Portfolio Optimization
- Machine Learning & AI: Regression Models, Neural Networks, Feature Engineering, Non-Negative Matrix Factorization (NMF)

EXPERIENCE

- Derivative Analyst
  Adroit Financials — Gurgaon, India | May-2024 - Present

- Executed and managed High Frequency derivative Strategy with focus on index & stock options, achieving consistent profitability in high-volatility environments.
- Developed Python-based tools for real-time options chain analysis, open interest tracking, and automating various reparative work using python.

- Helping Senior traders to annalise and visualize financial data, time series analysis, correlations, covariance and Principal Component analysis

Experienced in applying linear algebra techniques using Python to summarize and filter both structured and unstructured financial data, to prepare data sets for models in econometrics, machine learning, and deep learning.

- Quantitative Research Projects
  -Predicting Emerging market direction: Developed a Neural Network model using

CRIDP-DM method to forecast the short-term price direction of ETF of emerging markets.
- NSE F&O Dashboard: Created a Streamlit-based analytics tool visualizing bhavcopy data, open interest shifts, and implied volatility surfaces.
- Portfolio Risk Modeling: Applied factor models & Monte Carlo simulations to assess tail risk in multi-asset portfolios.

EDUCATION

MSc in Financial Engineering (in progress(1st year)) — WorldQuant University
Relevant Coursework: Quantitative Risk Management and Modeling, Computational Finance, Machine Learning in Finance, Derivatives Pricing

B.Tech in Civil Engineering — Dr. APJ Abul Kalam Technical University

CERTIFICATIONS & TRAINING

- Foundation of Financial Enginering– WorldQuant University(credly-link)