

Aman Yadav

Derivative Trader & Quantitative Researcher

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PROFILE

Quantitative researcher and algorithmic trader with robust experience in financial modelling, derivatives (especially options), and systematic strategy development. Skilled at designing and backtesting automated strategies across equities & derivatives using advanced quantitative and machine-learning techniques. Proficient in building end-to-end research pipelines, execution systems, and dashboards.

EDUCATION

MSc in Financial Engineering (in progress) — WorldQuant University

B.Tech in Civil Engineering (2018) — Dr. APJ Abdul Kalam Technical University

PROFESSIONAL EXPERIENCE

Derivative Analyst, Adroit Financials, Gurgaon, India · May 2024 – Present

- Executed and managed high-frequency derivative strategies focusing on stock & index options in high-volatility environments.
- Developed Python-based tools for real-time options chain analysis, open interest tracking, and automation of repetitive tasks.
- Designed a modular back-testing engine for multi-leg options strategies incorporating realistic order logic, margin, and slippage.
- Created production-grade dashboards (Streamlit/Plotly) for trade P&L, exposures, and risk attribution.
- Collaborated with trading and engineering teams to translate research signals into executable strategies with defined risk limits.

SELECTED QUANTITATIVE PROJECTS

- Straddle Backtest Engine – Configurable multi-leg options strategy framework with slippage, walk-forward, and net-return reporting ([GitHub](#)).
- Volatility Forecasting (GARCH) – data ingestion → GARCH model estimation → one-step-ahead volatility forecasting → risk-adjusted strategy signals ([GitHub](#)).
- Bankruptcy Prediction – Supervised-learning model with feature engineering, class imbalance, and SHAP explainability. ([GitHub](#))
- Token Live Dashboard – Streamlit app for NSE derivatives token analysis: ATM range filtering, OI tracking, expiry analysis, and position reconciliation. ([Dashboard](#))