Job Title: Quantitative Research Analyst – Institutional Equities

Location: Mumbai
Company: Choice Equity Broking Pvt. Ltd.
Department: Research
Reports to: Head of Research

Job Overview:

As **Quantitative Research Analyst – Institutional Equities** will be responsible for applying advanced mathematical, statistical, and computational methods to solve complex problems in finance and investment and directly influence investment strategies and portfolio management by developing innovative quantitative models, conducting rigorous data analysis, and collaborating with cross-functional teams to drive data-driven decisions.

Key Responsibilities:

- **Quantitative Model Development:** Develop and implement quantitative models for asset pricing, risk management, and trading strategies. Create models to predict market movements, identify investment opportunities, and assess the risk-return profile of different assets or portfolios.
- **Data Analysis and Statistical Methods:** Collect, clean, and analyze large datasets, leveraging statistical techniques such as time-series analysis**,** regression analysis**,** and machine learning algorithms. Use advanced data visualization techniques to present findings and insights from complex datasets. Analyze financial market data, including stock prices, macroeconomic indicators, and other financial variables to identify patterns and trends
- **Research and Strategy Development:** Conduct independent and collaborative research to explore new methods, models, and techniques for quantitative analysis. Stay up-to-date with the latest financial research and technological advancements in the quantitative finance field. Develop algorithmic trading strategies, utilizing statistical arbitrage, factor models, or machine learning algorithms to identify profitable opportunities
- **Performance Monitoring and Risk Management:** Develop risk models to assess and manage portfolio risks, including market risk**,** liquidity risk, and credit risk. Monitor and evaluate the performance of quantitative models and strategies, adjusting them as needed based on real-world performance
- **Automation and Process Improvement:** Automate repetitive tasks, such as data collection, model evaluation, and back testing, to improve operational efficiency and reduce errors. Continuously improve and optimize the quantitative tools and models used by the team for better decision-making and faster implementation
- **Documentation and Reporting:** Produce detailed technical reports and documentation for internal stakeholders, clearly explaining models, methodologies, and finding. Communicate complex quantitative concepts and results to non-technical stakeholders effectively, including portfolio managers, traders, and senior management

Qualifications:

- Bachelor's degree in Mathematics**,** Statistics**,** Physics**,** Computer Science**,** Engineering**,** Quantitative Finance.
- 3–5 years of experience in quantitative research**,** quantitative finance, or a related field.
- Advanced proficiency in programming languages, including Python**,** R**,** C++**,** or MATLAB, for quantitative modeling, statistical analysis, and machine learning
- Proven track record of building and implementing quantitative models and algorithmic strategies in a financial setting, including back testing, optimization, and performance evaluation.
- Strong analytical and quantitative abilities.
- Strong knowledge of statistical methods and data analysis techniques, such as regression analysis, time-series modeling, and Monte Carlo simulations.
- Experience working with financial data (e.g., historical prices, economic indicators, market data) and using platforms like Bloomberg**,** Thomson Reuters**,** or Fact Set.
- Strong problem-solving abilities and critical thinking skills to develop innovative solutions for complex financial challenges
- Attention to detail and the ability to spot errors or inconsistencies in data, models, and results.