

Rohan Kumar

Adm. No. 22JE0817 7905847440

rk13082003@gmail.com

linkedin.com/in/Rohan kumar

github.com/Rohankumar



Education

Indian Institute Of Technology Dhanbad

Expected May 2026

Bachelor of Technology in Mining Machinery Engineering (GPA: 8.27 / 10.00)

Dhanbad, Jharkhand

- Relevant Coursework:** Data Structures and Algorithms (C++), , Introduction to Programming (C), Engineering Thermodynamics, Numerical Methods, IC Engine, Design Principles, Manufacturing Technology.

Experience

AlphaGrep Securities

Mar 2024 – May 2024

Alpha Developer

Remote

- Researched market neutral Trading Strategies in the US market using **Fundamental** and **Options** Dataset.
- Constructed a Balanced profitable portfolio of uncorrelated signals with strategies being traded in live markets.
- Used APIs to Automate the Research resulting in **100** percent growth in submitted signals Quantity.

WorldQuant

Apr 2023 – Dec 2023

Quantitative Research Consultant

Remote

- Researched market-neutral Trading Strategies in the US and China markets.
- Implemented Volatility arbitrage, Mean reversion and Momentum strategies to create Alphas.
- Submitted over 75 alphas with overall **sharpe ratio** over 2.

Projects

Portfolio Optimisation | Python, Numpy, Pandas, Matplotlib, yfinance

[link](#)

- Implemented Principal Component Analysis (PCA) to transform the original asset returns data into a lower-dimensional space defined by its principal components effectively capturing the most crucial patterns in the data while minimizing noise and redundancy.
- Created Portfolios with the best variance and returns to beat benchmarks (equally weighted portfolio).
- The highest return portfolio achieved 99.7 percent returns compared to 22 percent of the benchmark.

Pairs Trading | Python, Numpy, Pandas, matplotlib, Statsmodel, Yfinance

[link](#)

- Implemented a pairs trading strategy in the US markets. Performed Stationary(AD fuller), co-integration, and correlation tests to find suitable pairs for trading.
- performed feature engineering and created a model to give profitable buy-sell signals.

Technical Skills

Languages: C, C++, Python, HTML, MATLAB(beginner)

Technologies: Numpy, Pandas, matplotlib, Seaborn, Statsmodel, SK learn.

Concepts: Object-oriented Programming, Operating System, Data Structure and Algorithms, Probability and Statistics, Machine learning, Data Analysis, Financial markets, Option theory.

Achievements

- Represented my college In the Inter IIT Tech meet (Quant Challenge) and secured 8th position among 21 participating institutes.
- Winner** in Biz-a-thon a pitch deck Competition Conducted under Concetto 2023 among 500+ participants.
- Secured **State Rank 15** among 200000+ participants in National Talent Search Examination(Stage 1).

Social Engagements and Position of Responsibilities

Instructor: Fintech Club IIT ISM Dhanbad

Club Member : at Quiz Club-Quizzing society of IIT Dhanbad

Organisor: Organised Several Quizzes in SRIJAN 24 (Cultural Fest).