Himank Gupta

Roll No.:210123026
B.Tech - Mathematics and Computing
Indian Institute of Technology, Guwahati

+91-8375823043
g.himank@iitg.ac.in
himankg1911@gmail.com
github.com/himank1911
linkedin.com/in/himank-g19

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	Indian Institute of Technology, Guwahati	7.89 (Current)	2021-Present
Senior Secondary	Delhi Public School, Vasant Kunj (CBSE)	97.4%	2021
Secondary	The Heritage School, Gurgaon (CBSE)	93.5%	2019

EXPERIENCE

- **BRAIN Research Consultant** *Jan 2023 - Present*
  WorldQuant LLC
  – Applying quantitative methods to develop trading signals (alphas) which are systematic investment strategies focused on market inefficiencies across a variety of global markets.
  – Backtesting the strategies on 10-year market data and assessing Sharpe, Turnover, Returns, Correlation and Fitness.

PROJECTS

- **Efficacy of Price-Action Trading Strategies** *Feb 2023*
  Inter IIT Tech Meet 11.0, IIT Kanpur Github
  – Built a hypothesis to test the profitability of **price-action based strategies** for the Indian equities market.
  – Developed a **low-frequency trading strategy** and methods for the **automatic detection** of price-action signals.
  – Used **Bonferroni Test** and **Abstract Testing Ratios** (Sharpe, Sortino, etc) to accept or reject the hypothesis.

- **Pairs Trading Strategy** *Jul 2023*
  Finance and Economics Club, IIT Guwahati Github
  – Identified **cointegration** between stock pairs to develop a **market neutral** strategy based on **statistical arbitrage**.
  – Made extensive use of **Z-Scores** to generate trading signals based on **mean reversion**.
  – **Backtested** the strategy and assessed the **portfolio performance** along with comparison to a benchmark index.

- **LSTM Network Stock Price Prediction Model** *Dec 2022*
  Finance and Economics Club, IIT Guwahati Github
  – Predicted the direction of **price movement** of stocks with deep learning using an **LSTM recurrent neural network**.
  – Identified **trends** and potential **trend reversals** using **technical indicators** like RSI, MACD, Williams %R and VWAP.
  – Used various evaluation metrics like **Correlation, Cointegration Test and RMSE** to analyse the model performance.

TECHNICAL SKILLS

- **Programming languages**: Python, C/C++
- **Database Management**: MySQL
- **Miscellaneous**: Numpy, Pandas, Matplotlib, SciKit Learn, Keras/TensorFlow*
- **Operating Systems**: macOS, Windows, Linux* ** Elementary proficiency*

KEY COURSES TAKEN

- **Mathematics**: Probability Theory and Random Processes, Linear Algebra, Differential Equations, Discrete Mathematics, Financial Engineering, Real Analysis
- **Computer Science**: Data Structures, Design and Analysis of Algorithms, Database Management Systems, Computer Organization and Architecture

POSITIONS OF RESPONSIBILITY

- **Quant Head**, Finance and Economics Club, IIT Guwahati *Mar 2023 - Present*
  – Leading a team of 50 club members with a keen interest in Quantitative Finance.
  – Conducting Campus and Nation wide courses and events to inculcate a culture of finance.

- **Core Team - Marketing**, Techniche 2023 *Nov 2022 - Present*
  – Leading a team of 40+ students to bring in sponsorships for the annual techno-management festival of IIT Guwahati.
  – Handling corporate relations for Techniche 2023 and ensuring smooth onboarding of companies.

ACHIEVEMENTS

- **Institute Rank 14**, AlphaGrep AlphaVerse Premier League *Jun 2023*
- **Gold Medal - Quant PS**, Inter IIT Tech Meet 11.0, IIT Kanpur *Feb 2023*
- **Global Rank 5**, Creative Shock (international social business-case competition) *Oct 2022*
- **AIR 840**, JEE Advanced *Oct 2021*
- **AIR 2143**, JEE Mains *Sep 2021*