RAGHAV SRIVASTAVA

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Linkedin | GitHub | Portfolio | Blog

EDUCATION

IILM College of Engineering & Technology

Greater Noida, India

B. Tech Computer Science & Engineering

2021 - 2025

Nehru World School

Ghaziabad, India

AISSCE

2018 - 2020

CGPA: 9.57

Delhi Public School Rajnagar

Ghaziabad, India 2011 - 2018

AISSEE CGPA: 10

EXPERIENCE

Tara Capital Partners | Quant Research Intern

Delhi | Oct 2023 - Present

- Built the Database from scratch for the Global Commodities Markets consisting of 13,000 Futures Contracts under 114 Tickers from 17 Exchanges.
- Developing Quantitative Models and Trading Strategies with Minimal Drawdowns and high Sharpe
- Leveraging Deep Learning methods for Mid frequency trading strategies.

MorphAI | Founder

Delhi | Jan 2023 - Sept 2023

- Fine-tuned LLMs like GPT-4, Llama2, etc. for in house product development and various businesses.
- Integrated RAG pipelines with the fine-tuned LLMs.
- Developed various solutions and product POCs that resulted in 10X ROI, 4X productivity for businesses in under 6-10 weeks on integration.

AlgoAnalytics | Quant Intern

Remote | May 2023 - July 2023

- Developing algorithmic trading strategies that incorporate sentiment analysis on Twitter data as a feature alongside Price-Vol data.
- Leveraged Transformers and other autoregressive sequence models, with classical ML models like Random Forest, to provide insights into the public sentiment towards Nifty50 stocks.

IIT Jodhpur | Research Intern

Remote | May 2023 - July 2023

• R&D of State of the Art Cognitive Models to simulate Human Curiosity, refine the current approaches to Reinforcement Learning.

Pace Stock Broking Services Pvt. Ltd. | Quant Intern

Delhi | Dec 2022 - Feb 2023

- Automating the login process to receive access tokens from XTS & Zerodha.
- Retrieving & Preprocessing tick data in real time from WebSockets.
- Developing and backtesting strategies.

SKILLS

Python, SQL, C++, C#, C, MATLAB. Programming Languages:

Libraries/Frameworks: Scikit-Learn, Tensorflow, Keras, NumPy, Pandas, Matplotlib, Qiskit, Penny-

lane.ai, XGBoost, Hugging Face, Socket.io, LangChain, PyMC, Statsmodels,

OpenAI

Tools / Platforms: Git, Linux, Flask, Gradio, Notion

Databases: PostgreSQL, SQLite, MongoDB, Chroma DB, ArcticDB

PROJECTS / OPEN-SOURCE

MorphAI | Link

Python, Langchain, OpenAI, ChromaDB, Hugging Face

- Developed a suite of LLM based product MVPs.
- This included fine-tuning and RAG pipeline integration on LLMs like GPT-4, GPT-3.5 T, Llama2, etc.

- The code demonstrates various features, including document-based retrieval, dynamic web searches, and interactive GPT-based chatbots.
- \bullet This facilitated 2X faster research & analysis, 4X productivity, 30% cost saving, 98% accuracy and a customer satisfaction rating of 4.8/5

Websocket to DB | Link

Python, Websocket, SQLite

- Real time retrieval and storage of minutely bars Options data from Zerodha, XTS WebSockets to a local SQLite DataBase.
- Preprocessing & performing complex calculations on the data in real time for simulations, paper trading.

Access Token Retrieval Automation | Link

Python, Websocket, Telegram, Google Sheets

- Automating the login process for Zerodha, XTS Connect.
- Saving the login info to google sheets.
- Notifying the user via Telegram on login, or in case of any error(s).

Algorithmic Trading Strategies | Link

Python, Numpy, Pandas, Talib

- Developed a portfolio of Market-Sentiment, Short-Term Reversal, Trend Following, Momentum based algorithmic trading strategies across various Instruments and assets.
- The strategies Sharpe Ratios ranging from 0.58 to 2.12, maximum drawdowns ranging from -4% to -39%.

Bank Fraud Detection | Link

Pandas, Scikit-Learn, NumPy, Matplotlib

- Implemented a Logistic Regression model to classify fraud transactions & flag illegal attempts.
- Trained & Validated the model on a dataset of 3.2 Million datapoints.
- \bullet Achieved an accuracy of 99.886 % with the model.

CERTIFICATIONS

- Advanced SQL **Kaggle**
- Neural Machine Translation Datacamp
- ullet Tensorflow & PyTorch on AWS AWS
- Text Classification Model with AWS Glue and Amazon SageMaker AWS
- SQL HackeRank
- Supervised Learning with Scikit-Learn Datacamp
- ullet Unsupervised Learning in Python ${f Datacamp}$
- Advanced Software Engineering Virtual Experience Program Walmart Global Tech

Honors & Awards

Selected as the Google Developer Student Club Lead at IILM university (2023-24)

Secured First rank (Twice) in national level vedic maths competition organized by Aadhar Mathemagic.

Fireball Award for being the fastest and the most accurate performer in National level Math quiz.

Academic Scholarship issued by IILM CET, granting 40% tuition fee waiver.

Scholar award with full tuition fee waiver for the complete academic year issued by Nehru World School.