Aryajeet Jha

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Education

Vellore Institute of Technology, Vellore 9.38 CGPA
BTech in Computer Science and Engineering with specialization in Internet of Things *Sept 2022 – Present*

Seth M R Jaipuria, Lucknow 96.75 %
Higher Secondary Education, PCM, ISC Grade XII *2021 – 2022*

Experience

Research Intern May 2024 – July 2024
Indian Institute of Management, Lucknow

- Implemented Pairs Trading strategy using Cointegration approach, analyzing over 40000+ data points from 10+ Banking sector's corporation's stocks.
- Engineered a robust database system using `MongoDB` to store and query 'High' data for over 5000 corporationsu.
- Automated cointegration analysis across stocks of 5,000+ corporations.
- Analyzed 40+ Banking sector stock pairs, incorporating OLS regression modeling, Z-score calculations, and trading signal generation.
- Created data visualizations and an Excel report showcasing annual cointegration analysis for more than 40 stock pairs.

Web Development Intern June 2024 – July 2024
Algabay AI Pvt. Ltd. *Remote Internship*

- Developed 2+ responsive web pages using React and Tailwind CSS, improving user interface and experience.

Technical Skills

Domain: FrontEnd, BackEnd, Data Analysis, Machine Learning, Deep Learning, Generative AI
Languages: Java, Python, C/C++, JavaScript, HTML/CSS, R
Frameworks: MongoDB, Express, React, Node.js
Developer Tools: Github, VS Code, PyCharm, Eclipse
Libraries: pandas, NumPy, Matplotlib, seaborn, scikit-learn, Tensorflow, PyMongo, GSAP, Socket.io

Projects

Chess Engine | *Python, Pygame*

- Crafted a robust chess engine supporting standard rules, including castling, en passant, and pawn promotion, for play against humans.
- Implemented the `Minimax algorithm` enhanced with `Alpha-Beta pruning` to optimize decision-making and improve move evaluation efficiency, ensuring competitive gameplay.

Diabetes Predictor Model | *Python, scikit-learn, NumPy, pandas*

- Developed a diabetes prediction model using Python, leveraging `pandas`, `NumPy`, and `scikit-learn`, achieving 78.6% accuracy on training data and 77.2% on test data with a Support Vector Machine (SVM) classifier using a linear kernel.

Web Chat Application | *MongoDB, Express.js, React.js, Node.js, Socket.io*

- Created a real-time web chat application using the MERN stack, utilizing `Socket.io`, enhancing the application with real-time messaging capabilities.
- Included emoji sending feature, enhancing user engagement and interaction.

Certificates

Machine Learning Specialization | *Coursera, Stanford University, DeepLearning.ai*

Achievements

Smart India Hackathon, 2023 | *Gov. of India*

- Ranked within the top 30 teams from VIT in the internal hackathon, surpassing 160+ other teams.

Hack Battle | *IEEE-CS @ VIT* *36 Hour Team-Hackathon | 19-21 Sept 2023*

- Achieved a top-tier position among the top 12 teams, standing out among 90+ competing teams.