Vats Pratap Singh

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TECHNICAL SKILLS

Programming & Scripting: Python, C++, SQL

Machine Learning & AI: Scikit-learn, TensorFlow, Keras, XGBoost, Pandas, NumPy

Data Science & Visualization: Matplotlib, Seaborn, Jupyter Notebook

Databases: PostgreSQL, MySQL, MongoDB

DevOps & Tools: Git/GitHub, n8n, Jenkins, VS Code

Cloud Services: Amazon Web Services, Google Colab

EDUCATION

Vellore Institute of Technology, Bhopal   Aug 2022 – Aug 2026
B.Tech in Computer Science and Engineering (Cloud Computing and Automation)
CGPA: 8.40

Delhi Public School, Indore   March 2022
Senior Secondary (Grade XII), CBSE, Percentage: 74.6%

Delhi Public School, Indore   March 2020
High School (Grade X), CBSE, Percentage: 83.5%

PROJECTS

TrendSage: Automated Market Insights Pipeline   Jan 2025 – Mar 2025
- Built an **n8n-based data pipeline** with **Node.js & Supabase** for automated market/competitor analysis.
- Integrated **Twitter, Yahoo Finance, Google News APIs** and web scraping for multi-source data collection.
- Applied **OpenAI summarization & sentiment analysis**; delivered insights via **Slack/Telegram reports**.
- Automated workflows with daily **cron scheduling**, ensuring consistent data refresh and reporting.
- Developed dashboards for **real-time visualization** of trends and competitor activity.

NeuroDetect: AI-Powered Parkinson's Detection   Apr 2025 – Jun 2025
- Designed ML system using **SVM, KNN, Random Forest, Decision Trees** on speech biomarkers.
- Achieved **87% accuracy** (Kaggle dataset) and **81% accuracy** (Google dataset) with KNN.
- Performed extensive **feature engineering & model evaluation**; built real-time prediction pipeline.
- Addressed **class imbalance issues** in the larger dataset, improving model generalization.

TerraTech: Crop Price Forecasting   Mar 2024 – May 2024
- Developed Flask web app using **LSTM & XGBoost** for hybrid crop price forecasting.
- Built interactive UI for data upload, model selection, and **real-time predictions**.
- Deployed dashboards for trend detection, volatility analysis, and policy insights.
- Provided **actionable recommendations** for farmers, consumers, and policymakers.

CERTIFICATIONS

IBM DevOps Fundamentals [**IBM**]   Apr 2025

AWS Solution Architect - Associate Certificate [**Ethnus**]   Apr 2025

DevOps on AWS Certificate [**Coursera**]   Dec 2024

AWS Cloud Technical Essentials Certificate [**Coursera**]   Mar 2024

HTML, CSS, and JS for Web Developers Certificate [**Coursera**]   Jan 2024

ACHIEVEMENTS

Completed **200 Days of Code** Challenge

Solved **185+** questions on **LeetCode**

Solved over **100** questions on **GeeksforGeeks**

Achieved **1783** Contest Rating on **GeeksforGeeks** and **1224** Contest Rating on **CodeChef**