

Vats Pratap Singh

vatspratapsingh@gmail.com | linkedin.com/in/vats-pratap-singh | github.com/vatspratapsingh

TECHNICAL SKILLS

- Backend:** C++, Python, Node.js, n8n Workflows
- Frontend:** React.js, HTML, CSS
- Database:** PostgreSQL, MongoDB, MySQL
- DevOps & Tools:** GitHub, Jenkins, Amazon Web Services

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

- TerraTech: Intelligent Crop Price Forecasting** Mar 2024 – May 2024
- Developed a machine learning web application for intelligent crop price forecasting using **Flask, TensorFlow, and XGBoost**.
 - Implemented **LSTM** and **XGBoost** models, combined into a hybrid approach for improved accuracy.
 - Built an interactive Flask-based UI with data upload, model selection, and real-time forecasting features.
 - Deployed dashboards with visual analytics for trend detection, market volatility, and policy recommendations.
- NEXUS: Real-Time Social Chat Application** Jun 2024 – Jul 2024
- Designed and implemented a full-stack **MERN** chat application with real-time messaging, video calls, and social networking features.
 - Developed backend services with **Node.js, Express.js, and MongoDB**, including JWT authentication and bcrypt password hashing.
 - Integrated **Stream Chat & Video APIs** for instant messaging, video calls, notifications, and presence tracking.
 - Built a responsive React frontend with **Tailwind CSS, DaisyUI**, deployed on **Render**, and used MongoDB Atlas as cloud DB.
- DevStream: CI/CD Pipeline with Jenkins and Docker** Jul 2025 – Aug 2025
- Built a complete CI/CD pipeline project demonstrating modern DevOps practices with automated build, test, and deployment workflows.
 - Implemented **Jenkins declarative pipeline** with GitHub webhook triggers for continuous integration.
 - Containerized backend API using **Docker multi-stage builds**, improving security and efficiency.
 - Automated **unit & integration testing** with Jest and Supertest, achieving over **50% code coverage**.
 - Integrated **ngrok** for secure webhook tunneling and configured GitHub hooks for real-time triggers.
- 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 reports**.
 - Automated workflows with daily **cron scheduling**, ensuring consistent data refresh and reporting.
 - Developed dashboards for **real-time visualization** of trends and competitor activity.

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