

Manan Kumar

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Professional Summary

Software Engineering student skilled in **Full-Stack Development** and **Applied Machine Learning**, with experience developing **secure, scalable web applications** and deploying **production-ready ML models**. Strong problem-solver with a solid foundation in **algorithms**, backend performance optimization, and **data-driven analysis**. Driven by curiosity, hands-on experimentation, and continuous learning across systems, data, and AI.

Education

B.Tech in Software Engineering — Delhi Technological University (DTU), New Delhi

CGPA: 7.64 (2022–2026)

Class XII (CBSE) — Sachdeva Public School

Percentage: 88.8% (2022)

Class X (CBSE) — Sachdeva Public School

Percentage: 91.2% (2020)

Projects

InvestMate — AI-Powered Portfolio Tracker

(Jun 2025 – Present)



Tech Stack: React, Node.js, Express.js, MongoDB, JWT, Chart.js, Recharts, Gemini API, Tailwind CSS

- Engineered a secure MERN web platform for **100+** users, implementing Google OAuth and JWT-based authentication.
- Designed an optimized **MongoDB schema** enabling **<70ms** real-time portfolio updates.
- Integrated **3+ live INR market APIs** to track **1000+ stock and crypto assets** in real time.
- Leveraged **Gemini API** to generate **AI-driven investment recommendations**, improving decision clarity by **~80%**.
- Visualized portfolio insights using **Chart.js** and **Recharts** (trendlines, P/L graphs, asset distribution).

Crop Yield Prediction & Fertilizer Recommender

(Apr 2025 – May 2025)



Tech Stack: Python, scikit-learn, NumPy, Pandas, Streamlit, Google Drive API (gdown)

- Developed a regression model (**R² = 0.91**) to predict crop yield using soil, rainfall, and climate-based environmental features.
- Implemented preprocessing and feature-encoding pipelines to produce clean, standardized model inputs.
- Built an explainable rule-based fertilizer recommendation module providing practical advisory outputs.
- Implemented and deployed an interactive Streamlit web app supporting real-time predictions and scenario testing.
- Utilized Google Drive API (gdown) for lightweight cloud-based model storage and on-demand loading.

Tour & Travel App UI

(Jan 2025 – Feb 2025)



Tech Stack: React.js, HTML, CSS, Tailwind CSS

- Designed a responsive React UI showcasing **30+ destinations** with custom card components and modal interactions.
- Achieved **90%+** Lighthouse performance and accessibility scores.
- Built a **mobile-first layout** using responsive grid patterns for consistent experience across devices.

Technical Skills

Languages: C, C++, JavaScript, Python

Frontend: React.js, Next.js, HTML5, CSS3, Tailwind CSS

Backend: Node.js, Express.js, REST APIs, JWT Authentication

Databases: MongoDB, MySQL, Firebase

AI/ML: Machine Learning, Neural Networks, TensorFlow, Scikit-learn, Pandas, NumPy, Prompt Engineering, Model Deployment

Tools: Git, GitHub, VS Code, Bootstrap, Generative AI, Power BI

Core Subjects: DSA (C++), OOP, OS, DBMS, CN

Core Skills: Software Development, Algorithmic Problem-Solving, Leadership, Team Collaboration

Achievements & Certifications

- Solved **400+** DSA problems; ranked in the **Top 10% globally**.
- 1650+** LeetCode contest rating; ranked **Top 20% globally**.
- Machine Learning Certification (Stanford & DeepLearning.AI)**
- Prompting Essentials Certification (Google)**
- Meta Full-Stack Developer Professional Certificate**
- Attained AIR 15,233 in JEE Mains; scored **98** in Math and **94** in Physics.



Leadership & Mentorship

Desh Ke Mentor, Govt. of NCT Delhi

(Jan 2024 – Apr 2024)

- Mentored students (Grades 8–10), improving **academic clarity** and conceptual understanding by **~30%**.

- Conducted **1-on-1 study planning**, goal-setting, and structured learning guidance.