OM KUMAR SINGH

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SUMMARY

Aspiring Machine Learning Engineer with a passion for solving real-world problems using AI, web development, and scalable systems.

EDUCATION

VIT Bhopal University   **2023 – 2027**
B.Tech, CSE (AI & ML)   *CGPA: 8.80*

Jamshedpur Public School   **2020 – 2022**
Class XII (CBSE)   *90.4%*

Tarapore School   **2008 – 2020**
Class X (ICSE)   *93.4%*

TECHNICAL SKILLS

- **Languages:** Python, Java, C++, C, SQL, JavaScript

- **Web:** HTML, CSS, React.js, Tailwind CSS, Node.js, Express.js

- **Frameworks/Tools:** TensorFlow, Keras, Flask, Streamlit, LangChain, ChromaDB, MongoDB, Vercel, Render, Postman, Git, JWT, bcrypt, Scikit-learn

PROJECTS

TravelWorld Tour Management Web App (Live 🔗) (GitHub 🔗)   2025

- **Stack:** React.js, Tailwind CSS, Node.js, Express.js, MongoDB, JWT, Vercel, Render
- Built and deployed a responsive MERN stack platform for booking and managing tour packages.
- Integrated JWT authentication and REST APIs, reducing manual processing time by 40%.
- Optimized frontend to reduce load time by 25% and enhance mobile responsiveness.

Conversational RAG Chatbot with Gemini & ChromaDB (Live 🔗) (GitHub 🔗)   2025

- **Stack:** Python, Streamlit, LangChain, ChromaDB, Google Gemini API
- Implemented an intelligent RAG chatbot with memory and multi-document ingestion.
- Improved semantic answer accuracy by 30% using Gemini embeddings and LangChain.
- Achieved 92% relevance score in user testing using ChromaDB retrievers.

AI-Based Plant Disease Detection System   2024

- **Stack:** Python, TensorFlow, Keras, Flask, Streamlit, Pillow
- Built a CNN achieving 91% accuracy for leaf image classification of plant diseases.
- Integrated Flask API with Streamlit UI for real-time diagnosis and treatment advice.

EXTRACURRICULAR

Google Crowdsource Community   **2024 – Present**
Operations and Content Lead

Linpack Club, VIT Bhopal   **2024 – Present**
Core Member

CERTIFICATIONS & HACKATHONS

- Java Foundations 1Z0-811 🔗
- Postman Student Expert 🔗
- Smart India Hackathon 2024 🔗
- Ethnus MERN Full Stack 🔗
- Python Essentials – VITyarthi 🔗
- EY Techathon 4.0 🔗
- NPTEL Cloud Computing – IIT KGP 🔗
- AI/ML Fundamentals – VITyarthi 🔗
- HP Power Lab Hackathon 🔗
- HackOn Amazon 2025 🔗