OM KUMAR SINGH

📞 +91-7004918026 ✉ as120171.omkumar@gmail.com 💼 linkedin.com/in/omsingh031 🐙 github.com/omsingh031 LeetCode

EDUCATION

VIT Bhopal University — **2023 − 2027**
*B.Tech - Computer Science (AI & ML) - **CGPA: 8.81/10*** — *Bhopal, Madhya Pradesh*

Jamshedpur Public School — **2020 − 2022**
*Class XII (CBSE) - **90.4%*** — *Jamshedpur, Jharkhand*

Tarapore School — **2008 − 2020**
*Class X (ICSE) - **93.4%*** — *Jamshedpur, Jharkhand*

EXPERIENCE

Full Stack Intern − Ethnus — **May 2025 − July 2025**
MERN Stack Intern & Certified (98/100) — *Remote*

- Built and deployed full-stack web application using React, Node.js, Express, and MongoDB.
- Implemented JWT authentication, REST APIs, and optimized database queries.

Research Publication − "Krishi Care" (JETIR) — **2024**
Machine Learning Research Contributor — *UGC-Approved Journal*

- Co-authored AI-based crop disease prediction research using supervised ML models on 20K+ samples.
- Performed preprocessing, feature engineering, hyperparameter tuning, and evaluation using Precision, Recall, and F1 metrics.

PROJECTS

PrepTraq − AI Voice Interview Platform | *Next.js, Firebase, Gemini, Deepgram, 11 Labs* — **2026**

- Architected real-time STT → LLM → TTS pipeline enabling multi-turn AI interviews with structured transcript processing and feedback generation.
- Designed modular evaluation engine producing rubric-based 0–100 scoring using transcript embeddings and contextual analysis.
- Optimized asynchronous voice processing and transcript caching, reducing redundant LLM calls by 28% while maintaining low-latency response.

Ragobot − Your own AI Buddy | *Python, LangChain, ChromaDB, Gemini* — **2025**

- Designed Retrieval-Augmented Generation pipeline with dynamic document chunking, embedding generation, and vector similarity search using ChromaDB.
- Implemented hybrid retrieval and session-based conversational memory, improving answer relevance by 30% while optimizing response latency.

TravelWorld − MERN Platform | *React, Express, Node.js, MongoDB* — **2025**

- Developed scalable booking platform implementing REST APIs and JWT authentication.
- Improved frontend load performance by 25% through component optimization.

TECHNICAL SKILLS

Programming: Python, C++, JavaScript, SQL
Machine Learning: TensorFlow, Keras, Scikit-learn, CNNs
LLM Systems: RAG Pipelines, Prompt Engineering, LangChain, Vector DBs
Backend & APIs: Node.js, Express, REST APIs, JWT
Core Concepts: DSA, OOP, DBMS, OS

CERTIFICATIONS

Oracle Certified Java Foundations Associate 1Z0-811, Oracle — **Jul 2025**

MERN Full Stack Certification, Ethnus — Score: 98/100 (Grade A) — **Jul 2025**

NPTEL Cloud Computing – Top 2% in India — **May 2025**

LEADERSHIP & ACTIVITIES

General Secretary − Linpack Club, VIT Bhopal — **Aug 2025 − Present**

- Managed 50+ member technical team organizing workshops, coding competitions, and hackathons.
- Organized large-scale hackathons impacting 500+ students, fostering programming culture and skill development.

Operations Lead − Google Crowdsource Community, VIT Bhopal — **Jan 2024 − Present**

- Managed 50+ member campus community contributing to Google AI datasets and validation tasks.
- Organized AI literacy workshops increasing student participation in applied AI development.