

Vinay Kumar

Software Engineer | AI & ML Enthusiast | MERN Stack Developer

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Aspiring Software Developer and a 3rd-year B.Tech student at VIT Bhopal (CGPA: 8.85) specializing in AI & ML. Proficient in MERN stack development and data structures, now expanding skills in Machine Learning. Passionate about building scalable applications and solving complex problems.

EDUCATION

B.Tech, Computer Science & Engineering (AI & ML)

VIT Bhopal University

Current CGPA: **8.85**

2023 – 2027

Bhopal, India

CERTIFICATIONS

AWS Certified Cloud Practitioner

Issued by Amazon Web Services (AWS)

[View Credential](#)

PROJECTS

EventSnap - Facial Recognition Photo Retrieval

Engineered the backend for a smart photo retrieval system. Implemented secure user authentication with JWT and Firebase Auth, and optimized a MongoDB database for fast facial recognition queries, enabling attendees to easily find their photos which are they part of in an Event.

Technologies: Node.js, Express.js, MongoDB, JWT, Firebase, Facial Recognition APIs

Expirey - Household Waste Reduction App [\[Code\]](#) [\[Live Demo\]](#)

Created a practical solution to minimize food and product waste by developing an expiry date tracking application. The system allows for easy input of products and their expiry dates, providing users with a clear overview and preventing items from being overlooked.

Technologies: MERN Stack, REST APIs, Tailwind CSS

CPI Predictor for India [\[Code\]](#)

Developed a machine learning model to forecast India's Consumer Price Index (CPI). The project involved training a Linear Regression model on historical economic data and deploying it as an interactive web application using Streamlit, allowing users to get future CPI predictions.

Technologies: Python, Scikit-learn, Pandas, Streamlit

Second Brain - Personal Knowledge Hub

Architected and developed a personal knowledge management application using the MERN stack. Allows users to aggregate and organize notes, and embed external content like YouTube videos and Twitter threads into a centralized hub.

Technologies: MERN Stack, REST APIs, Tailwind CSS

TECHNICAL SKILLS

Languages

- C++
- Python
- JavaScript

Full-Stack & Frameworks

- MERN Stack
- Typescript
- Next.js
- REST APIs
- HTML/CSS

Tools & Databases

- MongoDB
- SQL
- PostgreSQL
- AWS (Certified Cloud Practitioner)
- Docker

Machine Learning (Learning)

- NumPy, Pandas
- Scikit-learn
- Foundational Models

ACHIEVEMENTS & ACTIVITIES

- LeetCode Problem Solving:** Solved **150+** problems, demonstrating a strong grasp of Data Structures and Algorithms. ([View Profile](#))
- Competitive Programming:** Consistently secured strong ranks in coding contests on platforms like LeetCode.
- Project Leadership:** Led the backend development, authentication, and database design for the EventSnap project.