# ADITYA DUBEY

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Github

**€**LeetCode

## EDUCATION

# $\hbox{VIT Bhopal University, Bhopal}-\hbox{B.Tech in Computer Science and Engineering}\\$

CGPA: 8.82/10 | Bhopal, Madhya Pradesh

Sep 2022 – May 2026

 Cultivated advanced analytical and computational skills through rigorous coursework in computer programming, data structures, machine learning, and software engineering principles, emphasizing problem analysis, algorithm design, and system optimization.

#### **PROJECTS**

#### EarthMark: Eco-Score Check for Sample Products on Amazon

Nov 2024 - Dec 2024

- Developed EarthMark, a full-stack application leveraging React.js, Node.js, and MongoDB to calculate eco-scores for 20+ sample products using a structured JavaScript object dataset.
- Engineered a robust eco-score calculation system with an 85% accuracy rate, enabling detailed assessments of product sustainability to inform consumers in real time via a responsive frontend design framework.
- Developed and integrated a visually appealing React.js frontend with RESTful APIs, enhancing data retrieval speed by 30%, resulting in an optimized user experience for the EarthMark application.
- Built and rigorously tested a RESTful API using Postman to ensure effective communication between backend services and the frontend, enhancing application performance.
- Earned a spot among only **100 finalist teams** in the highly competitive **Amazon Sambhav Hackathon 2024** out of more than a thousand participants, highlighting exceptional collaboration efforts and advanced technical capabilities within project development.

#### **Handwriting Detection System using Machine Learning**

Feb 2024 - May 2024

- Integrated **OpenCV** for image preprocessing and **Pytesseract** for optical character recognition (OCR), achieving a **30%** enhancement in image analysis accuracy.
- Designed and trained a machine learning model with 85% accuracy in recognizing handwritten text across diverse document types.
- Built a user-friendly web application using **Streamlit**, ensuring real-time results with a response time of under 2 seconds.
- Conducted a comprehensive literature review of 17+ research papers, synthesizing insights into a detailed report covering architecture, performance, and future enhancements.
- Automated the deployment pipeline, enabling seamless integration of machine learning models into the web application for production-ready scalability.

## **TECHNICAL SKILLS**

- Programming Languages: C, C++, Python, Java, JavaScript, SQL.
- Frontend Development: HTML, CSS, React.js, Responsive Design.
- Backend Development: Node.js, Express.js, Postman.
- Database Management: MongoDB, MySQL, NoSQL, PL/SQL.
- Version Control: Git, Github.
- Machine Learning & Tools: NumPy, Matplotlib, Pandas, Scikit-learn, OpenCV, Pytesseract.
- Cloud & Data Analytics Tools: AWS, Excel.
- Core Competencies: Data Structures and Algorithms, DBMS, Object-Oriented Programming (OOP), System Design.

### **ACHIEVEMENTS/CERTIFICATIONS**

- 2<sup>nd</sup> round selection Amazon Sambhav Hackathon | Dec 2024
- Foundations of Data Science:K-Means Clustering in Python Coursera | Aug 2024
- Cloud Computing (Silver Medal) NPTEL | Apr 2024
- The Bits and Bytes of Computer Networking Coursera | Dec 2023
- MATLAB Onramp & Simulink Onramp MathWorks | Sep 2022