

## Summary

Computer Science undergraduate specializing in **Artificial Intelligence and Machine Learning** with strong foundations in Python, Data Structures, and Statistical Analysis. Experienced in building scalable software solutions and optimizing algorithms, with specialized knowledge in integrating machine learning models into functional applications. Seeking a **Software Engineering Internship** where I can apply my skills in Python, C++, and problem-solving to build scalable solutions.

## Education

### B.Tech in Computer Science & Engineering

📍 VIT Bhopal University, Bhopal

📅 2024- 2028

### Class XII

📍 Brij Kunwar Devi Aldrich Public School (CBSE)

📅 2022- 2023

## Responsibility

### 📍MATRIX Club, VIT Bhopal University

Core Member - Technical Team

Collaborate with team members to organize coding competitions and technical workshops. Mentor junior students in Python programming and Data Structures.

### 📍TechnoMech Club, VIT Bhopal University

Core Member - Technical Team

Spearheading the development of scalable technical projects and internal tools, focusing on optimizing system performance and enhancing user experience for the university community.

### 📍Yoga Pose Detection System Project

Team Leader

Managed project planning, task allocation, and version control using GitHub.

## Projects

### Credit Card Fraud Detection (Machine Learning)

- Built a supervised classification pipeline to detect fraudulent transactions in highly imbalanced datasets.
- Performed data cleaning, feature scaling, and applied SMOTE to address class imbalance.
- Trained and evaluated Random Forest and Logistic Regression models using precision, recall, and F1-score.

### Movie Recommendation System (Data Science)

- Developed a content-based recommendation system using cosine similarity for personalized movie suggestions.
- Processed and vectorized metadata for 5,000+ movies using Pandas and NumPy.
- Generated top-5 movie recommendations based on user preferences.

### Yoga Pose Detection System (Computer Vision)

- Optimized real-time video processing using OpenCV to reduce latency in pose estimation.
- Designed a real-time yoga pose detection and correction system using OpenCV and MediaPipe.
- Implemented a geometric approach using Euclidean distance to compute joint angles.
- Led a team of 6 members to integrate the model into a functional prototype providing real-time feedback.

### Hotel Sunrise – Hotel Booking Website (Web Development)

🔗 [Project Link](#)

- Designed and deployed a responsive hotel booking website using HTML, CSS, and JavaScript.
- Ensured cross-device compatibility and accessibility-focused UI/UX design.
- Deployed the application on Netlify for public access.

## Skills

- C++
- Java
- Python
- SQL
- JavaScript
- Data Structures & Algorithms
- Object-Oriented Programming (OOP)
- Database Management Systems (DBMS)
- Operating Systems
- Git
- GitHub
- VS Code
- Jupyter Notebook
- Linux
- Pandas
- NumPy
- Scikit-learn
- OpenCV
- MediaPipe
- Exploratory Data Analysis (EDA)
- Model Optimization
- Microsoft Excel
- Microsoft Word
- Netlify
- Vercel
- Google sites
- Railway
- Power BI

## Certificates

### Applied Machine Learning in Python – University of Michigan (Coursera)

Enhanced the data analysis with applied machine learning

### Operating Systems : Learn Fundamentals of Operating System

Covered process scheduling, memory management, threading, and concurrency.

### Certificate of Participation #T20DSACHallenge

Focusing on Stacks & Queues and applying 7 different DSA techniques

### Google Cloud Skills Boost

Introduction to Generative AI