# HARSHIT BANSAL

# Data Scientist | Al Engineer | C++ Programmer

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#### **SUMMARY**

Data Science and AI enthusiast with expertise in Machine Learning, NLP, and Computer Vision. Passionate about building AI-driven solutions and developing real-world applications. Experienced in Python, TensorFlow, PyTorch, OpenCV, LangChain, and SQL. Seeking a Data Science Internship to apply my skills in predictive modeling, data analytics and AI-driven decision-making.

#### **EDUCATION**

**Gwalior Glory High School, CBSE Board** 

Completed my entire schooling from Primary school to class 12th

#### K.J. Somaiya School of Engineering

2022 - 2026

Information Technology | 3rd year | Current CGPA: 8.39

#### **INTERNSHIP & WORK EXPERIENCE**

#### **DATA SCEINCE INTERNSHIP | KJSSE**

July '23 - August '23

- Implemented a full-scale data analytics and visualization tool for structured datasets.
- Used Python (NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn) for EDA & ML modeling.
- Built a predictive model to analyze and visualize trends, improving decision-making. [GitHub]

#### **DATA SCEINCE INTERNSHIP | KJSSE**

December '23 - January '24

- Selected among 20 students from hundreds of applicants for a 20-day data analytics workshop.
- Completed 10+ assignments involving data visualization, SQL, and Tkinter-based applications.
- Desinged a fully functional Feedback Management System with Tkinter GUI and SQL database.

## NGO VOLUNTEER | YOUTH POWER CARE RAKTDAN COMMITTE

June '24 - July '24

- Led awareness campaigns and fundraising for healthcare initiatives.
- Managed event outreach & coordination, impacting 100+ beneficiaries.
- Involved in Public Crowdfunding Events.

## **PROJECTS**

## CO2 Emission From Various Industries in India

JANUARY '25 - APRIL '25

Course Project | Supervisor. Prof. Kiran Kumari (KJSSE)

- Performed EDA on industrial CO₂ emissions using Python, Pandas, Matplotlib, Seaborn.
- Proposed ML models for future predictions and policy recommendations.
- Involving Parameters EV Pollution Data etc., for a further research comparative study. [Ongoing Project]

## **Voice-Controlled Home Automation System**

MARCH '25 - APRIL '25

Course Project | Supervisor. Prof. Sagar Korde (KJSSE)

- · Proposed a voice-activated home automation system using Raspberry Pi & Arduino.
- Also includes speech recognition & IoT-based relay control. [Ongoing Project]

#### Full Stack PHP Based Medical Appointment Booking App

**AUGUST '24 - NOVEMBER '24** 

Course Project | Supervisor. Prof. Purnima Ahirao(KJSSE)

- Designed and developed a medical appointment booking system utilizing HTML, CSS (frontend), PHP (API), and SQL (database).
- The project also incorporates secure user authentication, OTP-based verification, and efficient time scheduling.

## **Stock Trading News Alert Project**

- This application focuses on generating based on changes based on Stock Price Changes.
- In addition to that it provides relevant news articles and send important alert via message and notification

#### Medical Classification using Monai, OpenCV and Pytorch

- Proposed a disease detection model using Convolutional Neural Networks (CNNs).
- Used OpenCV for preprocessing and Monai for medical image analysis.

## Face Lock with Dynamic Database

- · Executed a real-time facial recognition system using OpenCV and Deep Learning techniques.
- Implemented a dynamic database for storing & updating user facial features using SQLite. [GitHub]

## **Predictive Schedulling for Doctor's Appointment**

• Based on Previous History stored in a Dynamic Database which uses previous Medical History of Patients to suggest Medical Appointment to Patients using Machine Learning Based Model. [GitHub]

#### SHA-256 Hash Verifier and Generator

APRIL '23

• Python based of SHA-256 Hash generator and verifier; SHA-256 Hash is one of the key techniques in Blockchain based Encryption. [GitHub]

#### **Disease Identification Model**

Using Scikit-Learn, TensorFlow and Exploratory Dala Analysis on a dataset on Kaggle, created a Model capable of Predicting diseases. [Github]

#### **Movie Recommendation System**

Using Scikit-Learn, TensorFlow and Exploratory Dala Analysis on a dataset on Kaggle, developed a Model capable of Suggesting Movies based on preferences on the user. [Github]

## Multiple LLMs based Project developed using Langchain

- Question and Answer with PDFs [Github]
- Youtube Script Generator implemented using Streamlit [Github]
- Youtube Video Summarizer [Github]

## Computer Vision Project [Github]

- Hand Tracking
- · Pose Detection

- Push-Up Counter
- · Screen Recording

## **TECHNICAL SKILLS**

- · Programming: Python, C++, SQL
- Machine Learning: Scikit-learn, TensorFlow, Hugging Face DevOps & Databases: SQL, AWS, Docker, Flask, Streamlit
- NLP & Computer Vision: OpenCV, LangChain, Transformers
- Data Analytics & Visualization: Pandas, NumPy, Matplotlib
  Other: Reinforcement Learning, RAGs, GANs, Blockchain Basics

## **ACADEMIC ACHIEVEMENTS**

- Appeared for GATE CSE 2025, scored All India Rank 6088 out of 1,25,000+ Candidates, Top 5% overall.
- Appeared for GATE DA 2025, All India Rank 8314, in my 3rd year.
- AIR 2399 in JEE Paper 2 in 2020. Selected among Top 2% of 1,20,000+ candidates across India.
- NATA Score: 153.5 & 147.5 in 2020, was in the top 97 percentile.
- Finalist IIT Kharagpur Data Science Hackathon 2024.
- College Level Finalist Smart India Hackathon in 2nd Year of Engineering.
- Selected among Top 12 Allianz Tech Championship Scholarship, after 3 rounds of selection from 200+ applicants.
- Secured 10/10 Grade Pointer in Multiple Subject in my 5 semesters of Engineering:
  - a. Theory of Computation b. Applied Mathematics

- c. Competitive Programming Laboratory
- d. Data Structures

## **CERTIFICATIONS**

- IBM Machine Learning Professional Certificate
- Reinforcement Learning by University of Alberta
- Blockchain Basics by University at Buffalo
- Applied Machine Learning in Python by University of Michigan
- · Visual Analytics with Tableau by University of California, Davis
- Data Structures and Algorithms by Love Babbar
- 100 days of Python by Angela Yu
- Financial Engineering by Columbia University