AARYA MEHTA

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CAREER OBJECTIVE

Motivated Computer Science and Engineering graduate with a strong foundation in Machine Learning, AI, and Python. Experienced in building ML-powered applications using LLMs like Llama, vector databases like ChromaDB, and deploying end-to-end solutions. Eager to contribute technical expertise and innovation in the development of next-gen automation and intelligence platforms.

EDUCATION

Bachelor in Computer Science and Engineering July 2021 - Jun 2025

Navrachana University, Vadodara

- Relevant Coursework - Python programming, Artificial Intelligence, Machine Learning, Data Science, Data Analytics, Database SQL and MySQL

TECHNICAL SKILLS

Programming Languages: Python
Database: MySQL Workbench
Python libraries: NumPy, Pandas, Opencv, TensorFlow, Scikit Learn
Data Science: Data Analysis, Data Preprocessing, Feature Engineering, Statistical Modelling, Predictive Analytics, AI, Machine Learning
Data Visualization: Matplotlib, Plotly, Seaborn, Power BI

Experience

Data Operations Analyst - IV Nov 10, 2025 – Present

NielsenIQ

- RMS Data Validation & Outbound (IV Specialist – DOA | DPS)
  (Retail Management System – Data Validation and Outbound, Input Validation & Data Preprocessing Specialist)
- As an IV Specialist within the DOA (Data Operations & Analytics) and DPS (Data Preprocessing) functions, my role focuses on ensuring the accuracy, consistency, and integrity of retail data flowing through the Retail Management System (RMS). I am responsible for validating, preprocessing, and managing outbound datasets to support accurate reporting, analytics, and client deliverables. My goal is to minimize data errors, streamline validation workflows, and ensure timely and high-quality data output aligned with organizational standards.

Machine Learning Intern Jan 2, 2025 – May 2, 2025

Spaculus Software

- SQL Query Generation Chatbot
  - Built a FastAPI-based chatbot that generates SQL queries for MySQL databases.
  - Integrated Groq API, Phidata Persistence Memory, and XAMPP MySQL for query storage and session management.
  - Developed a Team Agent Phidata for optimized BI query generation without storing chat history.
- Automated Invoice Data Extraction System
  - Developed a system using Azure Document Intelligence to extract structured data from invoices.
  - Implemented Ollama Agent to automate tax separation and categorize data into predefined columns.
  - Optimized the pipeline to process multiple PDFs at once and export results in Excel format.
- Vanna.AI Query System Implementation
  - Configured Vanna.AI locally with Ollama (Llama3.2 & Mistral-Nemo) and ChromaDB for query storage.
  - Trained and tested the model by asking custom and twisted questions to validate accuracy; manually cleaned and retrained the data to handle follow-up queries effectively
  - Integrated MySQL database for structured query responses and real-time API-based interactions.
- ML-Based Candidate Evaluation & Ranking System
  - Built an ML-powered Streamlit application for HRs to evaluate candidate CVs based on job description (JD); system scores resumes using criteria like qualification, skills, and experience, advancing only those above 45 to the assessment phase.
  - Integrated Groq API for assessment question generation based on JD; implemented secure candidate links, one-time submission logic with a 10-minute countdown timer, and email verification to ensure test authenticity.
  - Enabled dynamic features such as resume upload options (add or replace resume), assessment score visibility toggles for HR, real-time candidate ranking, and full database storage for JD, CVs, scores, and assessment results.

PROJECTS

Crop Recommendation App

- Developed an Android app for predicting soil properties by processing images captured via a webcam.
- Designed and implemented functionality to recommend suitable crop types based on soil analysis and weather conditions.

- Integrated APIs to fetch real-time weather conditions and plant disease data for enhanced recommendations.
- Technologies used: Python Libraries, Data Visualization, Machine Learning, APIs.
- Tools: Android Studio, Google Firebase.

Sentiment Analysis System

- Developed a robust sentiment analysis system to understand and interpret emotions expressed in text data.
- Technologies used: AI, Machine Learning, Natural Language Processing.
- Tool: Jupyter Notebook.

Customer Churn Prediction System

- Built a deep learning model using CNN to classify handwritten digits from the MNIST dataset.
- Achieved over 98% accuracy using TensorFlow/Keras.
- Tools: Python, TensorFlow, NumPy, Matplotlib.

Handwritten Digit Recognition

- Developed a robust sentiment analysis system to understand and interpret emotions expressed in text data.
- Technologies used: AI, Machine Learning, Natural Language Processing.
- Tool: Jupyter Notebook.