

Rohit Mukati

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 [Indore, India](#)

PROFESSIONAL SUMMARY

AI/ML Enthusiast and Emerging AI Engineer with hands-on experience in building machine learning pipelines, LLM-based chatbots, and Generative AI applications. Proficient in Python, SQL, LangChain, OpenAI, and open-source transformer models. Skilled in NLP, STT/TTS, OCR, multimodal AI, automation, and deploying scalable, real-world AI solutions.

Technical Skills

Languages and Tools	: Python, SQL(MySQL), Java, Git/GitHub.
ML & DL Libraries	: Numpy, Pandas, Matplotlib, Seaborn, Nltk, Sk-Learn, TensorFlow, PyTorch, Flask.
Speech & OCR	: Speech-to-Text (Whisper), TTS (Parler TTS), OCR (OpenCV/Tesseract, TrOcr).
Generative Ai & Agentic Ai	: LangChain, LlamaIndex, Retrieval-Augmented Generation (RAG), Crew Ai, Hugging Face (Transformers), Fine-tuning, Vector Databases. Multi-Models.
Vision AI & Computer Vision	: Object Detection, Face Recognition, Action Recognition using frameworks like Mediapipe, MMACTION (open-source), YOLO models, OpenCV
ML & DL Techniques:	: Data Collection, Data Preprocessing, Data Visualization, Linear and Logistic regression, KNN, Decision Tree, Random forest, SVM and K Means , Neural Networks, Natural Language Processing, words embeddings.

Professional Experience

- **NeevCloud** / AI & ML Intern Dec 2024 - present
 - Project 1: Chanakya AI – AI-powered Educational Assistant-
 - Worked on Chanakya AI, an AI-powered education solution for CBSE NCERT curriculum support.
 - Fine-tuned OCR models for improved handwritten character recognition
 - Collected and processed CBSE NCERT data across all subjects and classes, and pre-processed it into JSONL format.
 - Fine-tuned Meta's LLaMA 4 Scout model to generate structured Json responses from textbook data (images + text).
 - Improved generative model output to align closely with curriculum-based inputs.
 - Project 2: End-to-End Speech-to-Speech AI Pipeline-
 - Designed a three-stage voice interaction system for real-time multilingual voice responses.
 - Implemented OpenAI Whisper for converting diverse audio inputs into language-specific transcriptions.
 - Used ai4bharat/indic-bert model for natural language processing and translation of intermediate transcribed text.
 - Integrated Parler TTS model to convert processed text outputs into high-quality speech responses.
 - Built the pipeline to support multiple Indian languages with seamless audio input and output flow.
- **VRadicals Pvt. Ltd** / AI Intern Oct 2024 - Dec 2024
 - Developed and integrated a custom chatbot using OpenAI API.
 - Applied prompt engineering strategies to create and refine custom prompts for enhanced conversational responses.
 - Integrated Speech-to-Text capabilities using OpenAI's Whisper model for real-time voice input.
 - Explored and implemented Meta's LLaMA models for building domain-specific chatbot workflows.
 - Built the pipeline to Enabled seamless voice-to-response functionality in AI systems through advanced LLM

Education

Vikrant Institute of Technology and Management
Bachelor of Technology, Information Technology and Engineering
Specialization in **AIML**

Indore, MP
2021 - 2025

Projects

Automated Hiring Process System 🧠

- ❑ Developed end-to-end automated hiring system that streamlines resume collection, parsing, analysis, and evaluation.
- ❑ Integrated **Gmail API** and Google **Drive API** to automatically upload resumes from incoming emails, with optional manual uploads from external sources like WhatsApp.
- ❑ Parsed and processed resumes using PyPDFLoader, extracting structured data like name, email, experience, and skills.
- ❑ Utilized **Gemini API** to convert unstructured text to structured JSON for seamless downstream processing.
- ❑ Automated structured data insertion into Google Sheets, and organized files by moving processed resumes to Drive.
- ❑ Built a comprehensive dashboard for recruiters to view real-time candidate insights and resume analysis.
- ❑ Matched candidate profiles with job descriptions to shortlist top candidates based on relevant criteria.
- ❑ Integrated **Google Calendar API** to auto-schedule interviews and send calendar invites to selected candidates.
- ❑ Automated email and SMS notifications for interview scheduling, updates, and feedback using relevant APIs.

Text Summarization NLP 🧠

- ❑ Developed an end-to-end text summarization system with a fully structured pipeline using the Hugging Face Samsun dataset
- ❑ Conducted experiments and implemented final versions for data ingestion, validation, and transformation processes.
- ❑ Performed Word Embeddings during model building, followed by fine-tuning Hugging Face transformers to generate accurate, concise summaries.
- ❑ Built a prediction pipeline and a user-friendly app for seamless interaction and summary generation.

Medical ChatBot 🧠

- ❑ Built an AI-powered medical chatbot utilizing **LangChain** and a **RAG** (Retrieval-Augmented Generation) pipeline for accurate healthcare responses.
- ❑ Parsed medical documents of 700 pages using PyPDF Loader, converted them into chunks, and generated **vector embeddings** with Hugging Face models.
- ❑ Integrated Pinecone vector database to store, manage, and retrieve embeddings efficiently for real-time responses.
- ❑ Combined embedding retrieval with **OpenAI's** LLM, enabling context-aware and dynamic medical query resolutions.

Strength

Problem-solving

Adaptability

Analytical

Curious

Fast Learner

Achievements & Certifications

- ❑ Earned a Badge of completion for the Open-Access Data Science Virtual Experience Program - [BCG](#)
- ❑ Data Science Virtual Experience Programme Certification - [British Airways](#)