# NIKHIL MISHRA

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## OBJECTIVE

Results-oriented Gen AI Developer with 2.5+ years of experience in designing end-to-end AI solutions, Fine Tuning and Deploying NLP, LLM and CVmodels,and building scalable backend services. Proficient in Python, FastAPI,Tenserflow, LangChain, YOLOv10, RASA and Microsoft Copilot Studio. Adept at integrating AI tools to drive business efficiency and digital transformation

## EDUCATION

**Bachelor of Technology**, R.G.P.V Bhopal 2019-2023
Electronics and Communication Engineering (7.14 CGPA).

## SKILLS

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| **Programming Languages** | Python, SQL |
| **Libraries/Frameworks** | Transformers, Pytorch, Scikit-Learn, Pandas, Numpy, OpenCV, Langchain, Fastapi |
| **DataBases** | Postgresql, Vector Databases, Faiss, ChromaDB, Microsoft Dataverse |

## EXPERIENCE

**Associate Consultant** Jan 2023 - Current
Bdo India LLp *Bhopal M.P*

- Led the Saas Rag Chatbot Development Project And Achieved Goal of Saas Chatbot Product development for the company.
- Led the No click Dms Agent to Achieve the expertise in Agentic Ai development Using Microsoft Copilot Studio and Power Automate.
- Developed Pipelines for continuos Data flow from Differnt Api Endpoints to Fabric Data Lakehouse Using Pyspark , Pandas and Spark Sql.

## PROJECTS

**Rasa-Based Weather Bot.** Developed an AI-powered chatbot using Rasa for providing real-time weather updates through natural language conversations. The bot understands user queries, extracts location and intent using NLU, and fetches live weather data via external APIs. Integrated custom actions, fallback handling, and contextual dialogues to ensure smooth and accurate interactions. Deployed locally with scalable architecture and tested for multi-turn conversations and user engagement.

**SAAS Based RAG Application.** Developed a scalable SaaS-based RAG (Retrieval-Augmented Generation) system leveraging LangChain, FastAPI, PostgreSQL, Azure Blob Storage, OpenAI, and other advanced tools. This solution is designed to intelligently ingest, understand, and retrieve information from large document sets provided by customers. It enables accurate query resolution, contextual responses, and supports automated report generation in multiple formats including Excel, PDF, Word, and plain text. The platform is optimized for multi-tenant deployment, ensuring secure, efficient, and dynamic knowledge management across use cases.

**AI-Powered Wall Size Estimator.** Developed an AI-powered tool using OpenCV and YOLOv10 to accurately detect and measure painted wall dimensions from images or live video feeds. The system leverages object detection and computer vision techniques to automate wall size estimation, reducing manual effort and improving precision for interior design, renovation, and construction applications

**Automated Data Ingestion Pipeline in Microsoft Fabric for API-Based ETL.** Built a robust data pipeline in Microsoft Fabric to seamlessly ingest and process large datasets (hundreds of thousands of rows) from FoundU and Cirka APIs using Pandas, PySpark, and Spark SQL. Implemented pagination handling, efficient API orchestration, and daily automated table refreshes, ensuring reliable, scalable, and production-grade data ingestion.

**AI-Powered Voice-to-Voice Call Center Assistant with RAG and GPT-2 Fine-Tuning.** Developed an AI-driven, voice-enabled call center assistant that performs real-time voice-to-voice customer interactions using a fine-tuned GPT-2 model. Integrated LangChain, Transformers, Torch, and other open-source tools to enable Retrieval-Augmented Generation (RAG), allowing the bot to understand queries, fetch accurate responses from internal knowledge bases, and engage in natural, dynamic conversations.

## LEADERSHIP

- Led the end-to-end development of multiple AI-powered solutions, including a SaaS-based RAG platform, a no-click Copilot DMS agent, and a YOLOv5-based wall measurement tool. Demonstrated strong ownership, technical leadership, and cross-functional collaboration to deliver scalable, production-ready solutions with real-world impact.