

POOJA CHAUDHARI

India | +91-8320300021 | pooja0798@gmail.com | [LinkedIn](#) | [GitHub](#)

PROFESSIONAL SUMMARY

AI Engineer with 3+ years of experience building LLM applications, AI agents, RAG systems, and machine learning solutions using Python and Azure AI Services. Skilled in developing scalable AI workflows, evaluation frameworks, and data pipelines for procurement, supplier intelligence, and enterprise analytics.

SKILLS

Programming: Python, SQL, R, Java

Tools & Frameworks: LangChain, LangGraph, Flowise, Hugging Face, TensorFlow, OpenCV, YOLOv5, Streamlit, Flask, Azure AI Services, Azure AI Foundry, Azure OpenAI, Azure AI Search, Databricks, Power BI, Tableau, Bubble.io

Specializations: Machine Learning, NLP, Deep Learning, Computer Vision, Generative AI, LLMs, RAG, AI Agents, Multi-Agent Systems, Prompt Engineering, Model Evaluation, Data Pipelines, Data Visualization

EXPERIENCE

Associate Data Science Consultant, Emergys — Pune, MH **April 2025 – Present**

- Integrated Azure Bing Grounding with AI agents to enable real-time supplier discovery and web-based retrieval.
- Developed supplier intelligence pipelines to extract, qualify, score, and structure supplier information from multiple sources.
- Built evaluation pipelines for LLM and multi-agent workflows using Azure AI Foundry with custom procurement-specific evaluation metrics.
- Developed N-tier supplier mapping to identify supplier relationships across brands, products, and supply chains.
- Contributed to a LangGraph-based SQL Query Agent for natural language to SQL translation using schema-aware retrieval.
- Developed an LLM-powered solution to extract and validate should-cost models from Excel datasets.

AI and ML Engineer & Certified Bubble Developer, AGILF(x) — Gandhinagar, GJ **Dec 2023 – April 2025**

- Improved marketing prospecting workflows by developing AI-driven lead scoring and marketing performance forecasting solutions.
- Built a PDF-based chatbot using Retrieval-Augmented Generation (RAG) to enable natural language querying of onboarding and internal documentation.
- Developed an AI-powered recruitment assistant to analyze and evaluate candidate conversations.
- Built a hybrid symptom checker chatbot using rule-based NLP and machine learning for symptom analysis and nearby doctor recommendations.
- Developed a regression-based machine learning model to predict pilot risk scores for insurance-related use cases.

Data Science Intern, Whirlpool Asia LLP — Pune, MH **Sept 2022 – June 2023**

- Developed a YOLOv5-based model to detect dents and scratches for quality inspection.
- Automated PDF-to-Excel data extraction, improving efficiency by ~3x.

EDUCATION

M.Tech in Data Science, MIT World Peace University, Pune, MH **2021 – 2023**
CGPA: 9.60/10.0 (2nd Rank Holder)

B.E. in Computer Engineering, A. D. Patel Institute of Technology, Anand, GJ **2016 – 2020**
CGPA: 8.32/10.0

PROJECTS

AI Business Analyst Copilot

- Built an AI-powered business analytics platform using Streamlit, SQLite, Plotly, and LLMs for natural language querying and explainable SQL. Implemented root cause analysis, executive summaries, and contextual investigation workflows.

AI-Powered Knowledge Base

- Developed a document intelligence application using LangChain, Streamlit, Hugging Face, and ChromaDB to enable semantic search and conversational Q&A over uploaded documents using RAG.

Research Assistant AI Agent

- Developed an AI research assistant using RAG and arXiv to automate paper retrieval, summarization, and literature review generation. Enabled cross-paper semantic search through an interactive chatbot with Markdown and JSON report export.

Active Learning-Based AI System

- Built an adaptive learning platform using Streamlit and LLMs to generate Bloom's Taxonomy-based quizzes from PDFs and text. Implemented semantic answer evaluation, concept mastery tracking, personalized reinforcement, and learning analytics.

Defects & Scratches Detection (YOLOv5)

- Developed a surface defect detection system using YOLOv5, PyTorch, and OpenCV by training on annotated image datasets. Performed image preprocessing, hyperparameter tuning, and model evaluation using mAP.

Indian Sign Language (ISL) Generation & Recognition

- Built a multi-modal ISL system using TensorFlow, MediaPipe, OpenCV, and NLP for sign generation from text, speech, images, and video, with CNN-based hand gesture recognition.

Handwritten Math to LaTeX Conversion

- Developed a CNN-based handwritten mathematical expression recognition system with a Flask interface for real-time equation input. Implemented image segmentation, symbol classification, and LaTeX generation.

PUBLICATIONS

- "Indian Sign Language Generation - A Multi-modal Approach," ICCNT, 2023.
- "A Review on Indian Sign Language Generation," 4th ICLTEM, 2023.
- "Handwritten Mathematical Equations Conversion to LaTeX," IJCTT, 2020.