AKSHAY KUMAR C P

AI Engineer

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LinkedIn | Portfolio | GitHub

▶ CERTIFICATES

- Oracle Gen AI Professional
- igmGuru Gen AI
- AWS: ML Specialty, Cloud Practitioner
- Microsoft: AI 102 & AI 900
- Dataiku Core Designer Certificate
- Dataiku ML Practitioner Certificate

▶ TECHNICAL SKILLS

Dev	Python, Pytorch, Langchain, Langraph, Pyspark, etc.
Vector DB	Azure AI Search, Databricks Vector Search, Chroma, FAISS
Fine tune	Unsloth, Dreambooth
API	Fast API, Django, Flask
UI	Streamlit, Chainlit
Cloud	Azure & Databricks
DB	MySQL, MongoDB,
Agile	Scrum
Version Control	GitHub

▶ KEY INDUSTRIES

- Legal. Marketing.
- Finance
- Open-Source Software

▶ EDUCATION

M.C.A from B.M.S Engineering college (Autonomous V.T.U), Basavanagudi, Bangalore.

▶ PROFILE

- AI Engineer with 5.11 years of experience designing and deploying cutting-edge Generative AI and Machine Learning solutions.
- Proven expertise in LLMs, RAG, Agentic AI, prompt engineering, and fine-tuning using open-source and enterprise tools.
- Skilled at building full-stack AI systems on Azure and Databricks, delivering scalable solutions that drive business impact.
- Adapt at managing the complete Machine Learning or Generative AI lifecycle from data preparation, orchestration and deployment.
- Strong team leader and cross-functional collaborator.
- Committed to delivering high-quality, scalable solutions that drive business

▶ WORK EXPERIENCE

Senior Consultant - Generative AI Developer

Capgemini Technology | May 2022 - Present

- Developed multiple Agentic AI and RAG systems using Langchain, LangGraph, and Azure OpenAI.
- Led a 5-member team to build and deploy a ReAct-based agentic chatbot on Azure App Service.
- Designed secure, human-in-the-loop pipelines using Microsoft AutoGen with focus on prompt injection defense and data quality.
- Created AI-enhanced vector databases with document enrichment for enterprise chatbot search.
- Analyzed RFPs and translated requirements into scalable GenAI solutions.

Software Development Engineer – ML Engineer

Flexera Software's | Jun 2019 – May 2022

- Automated open-source software analysis workflows using Python and NLP.
- Developed machine learning models to detect open-source licenses and extract copyright information.
- Built REST APIs to expose model predictions, improving component license mapping from 35% to 55%.
- Researched and implemented chatbot platforms for HR automation using Dialogflow, Rasa X, and Azure LUIS.

PROJECTS

A. Agentic AI Chatbot

- Design & build Agentic AI workflow having text and visualization modes.
- Incorporated ReAct Agentic pattern from scratch and function calling for building reliable and robust Agentic System. Handled 5 team members.
- Deployed solution in an Azure App Service for accessing Chatbot within organization.
- Technologies: Langraph, FastAPI, Azure services – OpenAI (GPT-4o Model), App service, Key Vault, Storage, MySQL Server DB.

B. RAG Playground

- Contributed document parsers and AI enrichments for building an enriched vector database for downstream chatbot.
- Technologies: Langchain, Microsoft Azure, Databricks & Generative AI.

C. Code Assistant

- Generate Pyspark code for Business documents.
- Technologies: Databricks GPU Compute, HuggingFace, Open-Source tools, Prompt Engineering, etc.

D. RAISE platform – Agentic AI

- Agent based Human-in-loop for monitoring and evaluation.
- Security on Generative AI solutions in terms of Prompt injection attacks.
- Data quality metrics for Gen-AI solutions.
- Technologies: Microsoft Autogen & LLM.

E. Legal Tender AI Review

- Utilized RAG based architecture and various prompt techniques for performing Legal tender document reviews.
- Involved in requirement gathering, defining technical approach, performing multiple experiments under development of the solution.
- Technologies: GPT-3.5-Turbo LLM, text-embedding-ada-002 embedding model, Azure Cognitive Search vector store, Langchain & Prompt engineering.

F. Generate Synthetic Data

- Tabular: Utilized CT-GAN for synthetic tabular data generation.
- Image: Image synthesis using Open-Source Stable Diffusion Models.

G. Personalized Marketing

- Personalize images using Open-Source Stable Diffusion Models.
- Performed Fine Tuning using Dreambooth Framework.

H. Natural Language to SQL Query

- Implemented using OpenAI "txt-davinci-003" model and Prompt engineering techniques.
- Build UI using Streamlit/Gradio framework for show casing quick demo.

I. AWS Clean Room

- Take marketing decision without third party cookies.
- Amperity: CDP for Identity resolution (IDR) and customer campaigns

J. Customer Satisfaction Analytics

- Calculate Customer Satisfaction Metrics.
- Sentiment classification and Topic Modelling.

K. Open-Source License Detection & Copyright Extraction

- Increased component license mappings from 35% to 55%.
- Product was benefitted by identifying the precise copyright holder from license text.
- Handled data preprocessing, modelling, expose model prediction using REST API & deployment.
- Technologies: Python, NLP, Spacy, ML, REST APIs, UWSGI Server & MongoDB.

L. Q&A Chatbot for HR

- Research & implementation of multiple chatbot platforms such as google Dialog flow, Amazon Lex, Microsoft Azure Luis, Rasa X, using Python & MongoDB.
- Chatbot answered FAQ on HR department and sent out the information to mail.