

KRISHNA CHAITANYA GOUD MAKTHALA

AI Engineer | Generative AI | Applied AI | Production AI

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Right to Work in the UK (Graduate Route Visa) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFILE

AI Engineer with 2 years of enterprise software engineering at Accenture, an MSc in Data Science, and contract experience delivering production-oriented GenAI systems on AWS. Experienced in multi-agent systems, RAG, LLM APIs, function calling, vector retrieval, FastAPI, Docker, ECS Fargate and CI/CD. Combines software engineering discipline with hands-on applied AI delivery across retrieval, automation, latency and cost optimisation.

EXPERIENCE

AI Engineer (Contract) | Avsar | Remote, UK | Dec 2025 – Jun 2026

- Architected and delivered a modular multi-agent AI platform comprising three specialised agents: RAG-powered Guest Concierge, function-calling Booking Assistant, and sentiment-based Complaint Triage Agent, orchestrated with LangChain and OpenAI on AWS.
- Built end-to-end RAG pipelines over a 60+ document knowledge base using Pinecone, with custom chunking, embedding and semantic retrieval pipelines.
- Developed a FastAPI gateway providing unified REST access and modular agent routing; implemented function calling to translate natural-language hotel requests into structured booking API calls.
- Containerised the platform with Docker, published images to Amazon ECR, and deployed on Amazon ECS Fargate through GitHub Actions CI/CD.
- Optimised prompts and model configurations across three LLM services to improve response accuracy, reduce latency and manage API costs.

Application Development Associate | Accenture | Hyderabad, India | Sep 2021 – Sep 2023

- Engineered Python automation scripts to streamline multi-environment deployment workflows, reducing manual release effort and improving delivery-cycle efficiency.
- Built and maintained ASP.NET MVC and PowerShell configuration-management workflows, improving system uptime by 20% during peak retail demand periods.
- Analysed operational and retail datasets using SQL to identify incident patterns, supporting data-driven decisions and contributing to 100% SLA compliance; collaborated cross-functionally on root-cause analysis and production issue resolution.

TECHNICAL PROJECTS

AskMyDoc - RAG Document Intelligence Assistant | *Personal Project* | Feb 2026 – Present

- Built a document Q&A system using LangChain, OpenAI API, FAISS and Streamlit, delivering AI-grounded answers across uploaded PDF and DOCX files.
- Engineered a three-phase RAG pipeline with an LLM-based Clarification Gate, achieving sub-1s response times on standard documents and under 4s on 200-page files while reducing unnecessary API calls.
- Designed modular UI/AI separation with secure API key management and containerisation-ready architecture; GitHub: github.com/Krishna5301/AskMyDoc

Retail Demand Forecasting System | *MSc Capstone — UWE Bristol* | Aug 2024 – Sep 2025

- Built an end-to-end retail demand forecasting system across 12 COICOP categories using UK ONS quarterly data with four external regressors: price index, deflator, unemployment rate and UK bank holidays.
- Achieved 2.75% MAPE vs ~6.8% seasonal-naive baseline (~60% improvement) through feature engineering and CDID-to-COICOP mapping across incompatible ONS coding systems.
- Evaluated Prophet, ARIMA, LSTM and XGBoost; Prophet performed best in 10/12 categories. Deployed the forecasting application with Streamlit, Plotly and model persistence.

EDUCATION

MSc Data Science | University of the West of England, Bristol | Sep 2024 – Sep 2025

BTech Electronics & Communications Engineering | SNIST, Hyderabad | Aug 2017 – Aug 2021

TECHNICAL SKILLS

AI / GenAI: RAG, Agentic AI, LangChain, LangGraph, OpenAI, Anthropic, Function Calling, Prompt Engineering, NLP, Pinecone, FAISS

ML / Data: scikit-learn, XGBoost, LSTM, Prophet, ARIMA, pandas, NumPy, SQL, R, Feature Engineering, Statistical Analysis, ETL

Engineering / MLOps: Python, FastAPI, Docker, AWS ECS Fargate, ECR, S3, GitHub Actions, CI/CD, Model Deployment

Visualisation: Streamlit, Plotly, Power BI, Matplotlib, Seaborn

CERTIFICATIONS

AWS Certified Cloud Practitioner | Microsoft Azure Fundamentals (AZ-900)