



Musaddique Hussain Jahagirdar

Data Scientist – Generative AI Solution Architect

Experienced data scientist with a strong background in Generative AI, Agentic AI framework, ML and .NET development. proficient in data analysis, modeling, and visualization using python and ML. Skilled in utilizing the .NET framework to build scalable applications and integrate data science solutions. Strong problem-solving skills and a passion for leveraging data to drive business insights and innovation.

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WORK EXPERIENCE

Total 14+ years of experience in .NET, 8 years in Python, Chatbots, Machine Learning & NLP, 2.5+ year in Generative AI.

Data Scientist | GenAI Engineer | AIForceAgentic Platform HCLTech Private Ltd.

10/2024 - Present,

Bangalore, India

Achievements/Task

- **Technologies:** Python, Blazor, MongoDB, Agentic AI Framework, LangChain, LangGraph, Redis, ChromaDB, AKS, ACR, Azure AI Services, Azure AD, GitHub Actions
- **Primary goal:** Automate cloud, database, and network management tasks via specialized AI agents. Seamlessly overlay AI capabilities on top of existing IT systems without disrupting existing tools. Enable secure, context-aware, and continuously evolving agentic behavior in IT operations.
- **Solution:** Developed a modular platform with five core components: Agent Studio, Runtime Engine, AI Hub, Value Framework, and AI Dashboard. Implemented agent lifecycle management using LangChain/LangGraph and integrated it with a React-based frontend. Deployed Redis and ChromaDB for fast agent memory and vector search capabilities. Secured and scaled the platform via Azure AD integration and AKS-based deployment architecture. Integrated Azure AI services to enhance agent decision-making and natural language capabilities. Established a "Learn–Unlearn–Relearn" framework for controlled agent skill development and validation in sandbox environments.
- **Result:** Reduced manual IT operations effort by automating 60–70% of routine tasks through agentic workflows. Achieved zero-downtime deployment and secure scalability via AKS and GitOps-driven AI Hub. Delivered measurable ROI improvements and KPIs through the Value Framework analytics engine.

Data Scientist | Gen AI Engineer | HR Helpdesk Copilot Accenture Solution Private Ltd.

03/2023 – 09/2024,

Bangalore, India

Achievements/Task

- **Primary goal:** Create exceptional conversational experiences, intelligent information retrieval, and a seamless user interface.
- **Solution:** Utilized Retrieval-Augmented Generation (RAG) for interactive conversations, integrated Azure Cognitive Search for efficient information retrieval, incorporated Azure OpenAI for enhanced language understanding, leveraged LangChain for customize LLM, prompts, chains and memory. developed a responsive web interface using ASP.NET Core Blazor and MudBlazor, enhance security with Azure AD Authentication.
- **Result:** Successful delivery of a chatbot solution with highly engaging conversations, accurate information retrieval, natural language understanding, and a visually appealing user interface. Revolutionized communication, improved information access, and enhanced user satisfaction within the enterprise.

COMPETENCIES

.NET

Python

S Q L

FastAPI

N L P

ML Algorithms

Docker, Kubernetes

Agentic AI

Chatbots & Real-time Application

LangChain & OpenAI

TECHNICAL SKILLS

Operating System:

Windows, Linux (necessary commands for Docker)

Integrated Development Environment:

Visual Studio, VS Code, Pycharm, Jupyter Notebook, Colab

Programming Languages:

C#, Python, SQL

Machine Learning Frameworks & Libraries:

Machine Learning, Deep Learning, Classification, Regression, Clustering, Scikit-Learn, Scipy, TensorFlow, Keras, PyTorch, Hugging Face, NumPy, Pandas, BeautifulSoup4, Spacy, OpenCV.

Generative AI Frameworks, Protocol & Models:

Agentic AI, LangChain, LangGraph, Crew.ai, LlamaIndex & Microsoft Agent Framework, Azure OpenAI, Google Gemini, Amazon & Open source LLM Models (Ollama) and Guardrails, RLHF Based pipelines, LoRA, QLoRA, MCP, A2A.

Web Technologies:

ASP.NET Core MVC, Blazor Server & Web assembly, SignalR

Web Services:

ASP.NET Core Web API, FastAPI, WebSocket

Azure and Bot Technologies:

Microsoft Bot Framework, Azure AI Services, AI Foundry & ML Databricks, Azure Cognitive Services, Dialogflow, Twilio.

Database, Data Analysis & Visualization:

MS SQL, Graph & Vector Databases, Statistical Analysis, Exploratory Data Analysis, Hypothesis Testing, Matplotlib

Version & Data Control:

Git, MLOps, Agile, Azure DevOps, GitHub Enterprise, CI/CD Pipelines, MLflow, DVC, Prompt flow, LLMops

Cloud Platforms, Containers & Infrastructure as Code:

Azure, Google, AWS, Docker, Kubernetes, AKS, GKE, EKS Terraform, Ansible

PROJECTS (Open-Source Contribution)

- myPortfolio: [MusaddiqueHussainLabs](#)
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