MusaddiqueHussain Jahagirdar

Data Scientist – Generative AI Engineer

Experienced data scientist with a strong background in generative ai, machine learning 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.

✉ musaddiquehussainlabs@gmail.com

📱 +919591687580

📍 Jhanavi Capetown, Electronic City, Bengaluru, India

📅 15 July, 1988

in linkedin.com/in/musaddiquehussainlabs

○ github.com/MusaddiqueHussainLabs

WORK EXPERIENCE

Total 12+ years of experience in .NET, 6+ years in Chatbots, Machine Learning & NLP, 1+ year in Generative AI.

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

08/2023 - Present,   *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.

Data Scientist | AI Engineer | Email Advisor
Accenture Solution Private Ltd

01/2021 - 07/2023,   *Bengaluru, India*

Achievements/Tasks

- Developed an Email Advisor system using Python, machine & deep learning, standard packages and frameworks, Azure DevOps Repos, custom packages with Azure Artifacts, and FastAPI.
- **Primary goal**: Automate the resolution process for incoming emails by intelligently analyzing and responding to them.
- **Solution**: Utilized Python with machine learning and deep learning techniques, standard packages and frameworks for natural language processing, text classification, and sentiment analysis. Employed Azure DevOps Repos for version control and collaboration, custom packages stored in Azure Artifacts, and FastAPI for building a scalable backend API.
- **Result**: Successfully delivered an efficient and automated Email Advisor system that intelligently analyzes incoming emails, extracts relevant information, and determines appropriate resolutions. Leveraged established tools and algorithms for accurate natural language processing and sentiment analysis. Facilitated collaboration with Azure DevOps Repos and reusable components with Azure Artifacts. FastAPI ensured quick response times for email resolution, improving efficiency and customer satisfaction. Overall, this project successfully delivered an Email Advisor system that streamlined the resolution process, enhanced efficiency, and improved customer satisfaction. Achieved significant FTE reduction of approximately 10% and cost savings of up to 30%.

COMPETENCIES

.NET   Python   S Q L   FastAPI   N L P

Machine Learning Algorithms   Docker, Kubernetes

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:
Supervised & Unsupervised Learning, Deep Learning, Classification, Regression, Clustering, Scikit-Learn, Scipy, TensorFlow, Keras, NumPy, Pandas, BeautifulSoup4, Spacy, OpenCV.

Generative AI Frameworks & Models:
LangChain, LlamaIndex & Semantic Kernel, Azure OpenAI, Google Gemini & Open source LLM Models and Guardrails.

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

Web Services:
ASP.NET Core Web API, FastAPI, WebSocket

Bot Technologies:
Microsoft Bot Framework, Azure Language & Speech Studio, Azure Cognitive Services, Dialogflow, Twilio

Database, Data Analysis & Visualization:
MS SQL Server, Vector Databases, Statistical Analysis, Exploratory Data Analysis, Hypothesis Testing, Matplotlib

Version & Data Control:
Git, MLOps, Agile, Azure DevOps, CI/CD Pipelines, MLflow, DVC, Prompt flow

Cloud Platforms & Containers:
Azure, Google, Docker, Kubernetes, GKE, AKS, AWS (Basic)

PROJECTS

Open-Source Contribution

- myPortfolio: MusaddiqueHussainLabs
- musaddiquehussainlabs · PyPI: Empowering text analytics with advanced tools for comprehensive NLP and LLMs.

Data Scientist | AI Engineer | Live Agent Portal
Accenture Solution Private Ltd

09/2019 - 12/2020, *Bengaluru, India*
Achievements/Tasks

- Developed a Live Agent Portal using C#, ASP.NET Core Blazor, MudBlazor, ASP.NET SignalR, WebSockets, ASP.NET Core Web API, Azure AD Authentication, and SQL Server.
- **Primary goal**: Create a robust and secure portal for real-time communication between agents and customers.
- **Solution**: Utilized ASP.NET Core Web API for backend data management, ASP.NET Core Blazor and MudBlazor for the frontend web interface, ASP.NET SignalR and WebSockets for real-time messaging, Azure AD Authentication for secure access control, and SQL Server for efficient data storage.
- **Result**: Successful delivery of a highly functional Live Agent Portal enabling real-time communication, intuitive user interface, instant messaging, secure authentication, and efficient data management. Improved customer support, streamlined communication, and enhanced data security within the organization.

Chatbot Developer | AI Engineer | Enterprise Chatbots
Accenture Solution Private Ltd

10/2017 - 08/2019, *Bengaluru, India*
Achievements/Tasks

- Developed chatbot solutions for banking and learning domains using C#, Microsoft Bot Framework, Azure Cognitive Services, Azure Language Studio, Speech Studio, LUIS, and QnA Maker.
- **Primary goal**: Provide efficient customer support and educational assistance through conversational AI and natural language understanding.
- **Solution**: Utilized C# and Microsoft Bot Framework for chatbot development. Leveraged Azure Cognitive Services, including Azure Language Studio and Speech Studio, for advanced language processing and voice interactions. Integrated LUIS for intent recognition and entity extraction, and employed QnA Maker for a knowledge base of frequently asked questions.
- **Result**: Successfully delivered chatbot solutions that personalized customer support in the banking domain, addressed inquiries and provided transactional information. Enhanced educational experiences in the learning domain by delivering relevant information, course recommendations, and accurate responses. Enabled voice interactions, improved language understanding, and enhanced user satisfaction.

Senior Software Developer | Work Management Tool
Capgemini Private Ltd

09/2011 - 31/2015, *Bengaluru, India*
Achievements/Tasks

- Developed a work management tool for the aerospace domain using C#, ASP.NET, ADO.NET, and SQL Server.
- **Primary goal**: Efficiently manage resources, daily tasks, quality checks, document uploads, and provide a helpdesk module for streamlined support.
- **Solution**: Utilized ASP.NET as the backend framework, ADO.NET for seamless database connectivity to SQL Server, and leveraged SQL Server for secure and reliable data storage.
- **Result**: Successfully delivered a highly functional work management tool that optimized resource allocation, improved task coordination, ensured adherence to industry standards through quality checks, facilitated secure document storage, and provided prompt support services. Leveraged the power of ASP.NET, ADO.NET, and SQL Server to streamline operations and enhance productivity within the aerospace domain.

MetaConvo NLP 1.0 (Enterprise) (*01/2022 – Present*)

- Text processing library for Python, It provides production-grade,scalable, and trainable versions of the latest research in natural language processing.
- created custom extraction models like, Email Parser with attachments,documents analysis including disambiguation, relevant, entities,relations, sentiment, PII and language detection.

EDUCATION

Bachelor of Engineering in Electronics and Communication
BLDE Association of Bijapur, Affiliated under V.T.U Belgaum
2006 – 2010

Diploma in .NET
From NIIT, Pune
2010 – 2011

CERTIFICATES

AZ-900: Microsoft Azure Fundamentals
12/2019

HONOR AWARDS

Growth Catalyst Award – Accenture (02/2022)
ACE awards program
Growth Catalyst Award – Accenture (09/2022)
ACE awards program
Growth Catalyst Award – Accenture (12/2021)
ACE awards program
Orange Award – Accenture (03/2021)
ACE awards program
Orange Award – Accenture (12/2018)
ACE awards program
Team Award – Accenture (12/2018)
ACE awards program
Spot Award – Accenture (08/2016)
Award from APP R&R
Excellent Service Delivery Award – Capgemini (03/2015)
Award from R&R Team

LANGUAGES

English
Native or Bilingual Proficiency

Urdu
Native or Bilingual Proficiency

Hindi
Native or Bilingual Proficiency

Kannada
Limited Working Proficiency

Arabic
Elementary Proficiency

PERSONAL DETAILS

Passport Number – W8198514
Marital Status – Married

INTERESTS

CL / CI   Artificial Intelligence