

# ABHISHEK V S

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Bengaluru, Karnataka - 563123, India

## PROFESSIONAL SUMMARY

Data Scientist (2+ years) specializing in Generative AI, speech technologies, and applied NLP. Hands-on experience building and scaling TTS systems, developing RAG pipelines, and deploying LLM/agent workflows in production. Proficient in MLOps, model optimization, and distributed data workflows. Holds the Databricks Certified Generative AI Engineer Associate credential, demonstrating strong expertise in modern AI engineering.

## EXPERIENCE

### • Celebal Technologies

Associate Data Scientist

April 2023 - Present

Bengaluru, India

#### 1. Bhashini Project - National Language Translation Mission

Tools: Python, Docker, Git, GitHub, PyTorch, HuggingFace, PyTorch, Virtual Machines, Azure ML, MLOps, NVIDIA Cloud  
Sep 2024 - Present

- Led research and development of key speech and language technologies—including Text Normalization, Text-to-Speech (TTS), training and fine-tuning of TTS models, Speaker Recognition, and Lip-Sync models—as part of the Bhashini initiative under the Government of India's Digital India mission.
- Implemented optimization strategies that enhanced TTS output quality and reduced latency—achieving a 20% improvement in naturalness and intelligibility, and cutting response time by 50%, enabling the model to respond in approximately 100ms.
- Successfully deployed an end-to-end voice-cloning TTS model to enhance adaptability and personalization of text-to-speech services.
- Designed and managed end-to-end MLOps workflows, including model packaging, versioning, and deployment of multiple models—such as TTS and Speaker Recognition—on Azure Machine Learning (AML) endpoints, ensuring scalable, secure, and production-grade inference.

#### 2. GenAI ChatBot for ADSS Traders and Dashboard

Tools: Python, FastAPI, Uvicorn, Azure OpenAI, Azure Services, VeraCode, GIT, API Management, Jira, Confluence  
May 2024 - July 2024

- Effortlessly integrated real-time API data to drive dynamic updates, leading to a 50% boost in user engagement.
- Leveraged advanced prompt engineering techniques, including Chain of Thought (CoT), Meta, Few-Short and ReAct prompting to enhance response accuracy and relevance, achieving a 30% improvement.
- Integrated deep link functionality in chatbot responses for seamless user navigation and interaction.
- Architected and deployed a real-time streaming response system for the chatbot, driving a 35% increase in user engagement.
- Deployed all services securely within a private environment and implemented the Service Principal technique, eliminating the need for constant key management. This approach significantly reduced maintenance costs and enhanced security.
- Developed a dashboard to monitor user engagement, track bot uptime and downtime, analyze RAGAS metrics for each query, and provide live conversation logs.

#### 3. GenAI Bot for Dubai Airports (POC)

Tools: Python, FastAPI, Azure OpenAI, Azure Services, Flask, Azure App Services, GIT  
Feb 2024 - Apr 2024

- Developed a GenAI chatbot for Dubai Airports to assist both passengers and corporate users with their inquiries and services.
- Enabled passengers to easily check flight status, navigate the airport, and access transportation services, improving their overall travel experience.
- Integrated real-time data for flight updates, navigation, and transportation, ensuring dynamic and accurate responses for passengers.
- Designed and implemented a dual-purpose interface allowing users to select between passenger services and corporate services.
- For corporate users, provided assistance with operational inquiries, flight schedules, and logistical support.
- Applied advanced prompt engineering and integrated Azure OpenAI for intelligent, context-aware responses, ensuring a smooth interaction for both passengers and staff.

- Deployed the GenAI Bot on Azure App Services, ensuring scalable, reliable, and high-performance hosting for real-time interactions.

**4. GenAI Legal Bot for Adani Cements**

*Tools: Azure AI Search, Python, Flask, App Services, OpenAI, Azure Storage, Azure NoSQL*  
*Nov 2023 - Jan 2024*

- Enabled the bot to process and interact with a wide range of document formats, including PDF, JPG/PNG, Excel, CSV, and DOCX.
- Enhanced data ingestion latency for PDF data by through asynchronous processing and Implemented a Hybrid AI search system, for efficient document retrieval and integrated OpenAI LLMs for dynamic and accurate query generation.
- Developed a feature that allows users to query and extract information from both structured and unstructured data within documents.
- Incorporated side navigation functionality that highlights the relevant text from documents and shows page numbers, allowing users to view and interact with the exact document excerpt.
- Designed a summarization feature for lawyers, enabling them to generate concise summaries of lengthy documents by clicking a designated button.
- Conducted evaluation using RAGAS metrics—relevancy, recall, and precision—to assess the bot’s query response accuracy and effectiveness.
- Deployed the GenAI Legal Bot on Azure App Services, ensuring scalable, reliable, and high-performance hosting for real-time interactions.

**• Flip Robo Technology**

*Data Science Intern* *March 2022 - September 2022*  
*Bangalore, India*

- Developed machine learning models for regression and classification.
- Performed exploratory data analysis to extract insights and identify relationships within the data.
- Visualized data by distinguishing between continuous and categorical variables.

**EDUCATION**

<b>• Aditya College Of Engineering</b> <i>B Tech in Computer Science &amp; Engineering</i> <ul style="list-style-type: none"><li>◦ Grade: 71%</li></ul>	<i>July 2018 - July 2022</i> Madanapalle, India
<b>• Swami Vivekananda PU College</b> <i>Pre-University College (PCMB)</i> <ul style="list-style-type: none"><li>◦ Grade: 70%</li></ul>	<i>June 2016 - July 2018</i> India
<b>• Sri Manjunatha English Medium School</b> <i>SSLC (Secondary Education)</i> <ul style="list-style-type: none"><li>◦ Grade: 73%</li></ul>	<i>June 2015 - June 2016</i> India

**SKILLS**

- **Programming Languages:** Python
- **Frameworks & Libraries:** Flask, FastAPI, Langchain, mlflow, PyTorch, Pandas, Numpy, Scikit-learn, SpaCy, OpenCV, Haystack, LlamaIndex, DSPy, Selenium
- **Data Science & Machine Learning:** Classic ML, MLOps, Deep Learning, LLMs, Speech Systems, Time Series Models (ARIMA & SARIMA), Optimization Techniques
- **LLMs Models:** Meta, OpenAI, Mistral, Databricks, HuggingFace, Ollama
- **Databases and Vector Databases:** MongoDB, PostgreSQL, Chroma, Pinecone, Azure Cognitive Search/ Azure AI search
- **Natural Language Processing (NLP):** RAG/CAG, Multi Agent RAG, Generative AI, Named Entity Recognition, Chatbots, Information Retrieval, Seq2Seq Modeling, Classical NLP, RAGAS metrics
- **Cloud Technologies:** Microsoft Azure, NVIDIA
- **Tools & Technologies:** GIT, SQL, Docker, VeraCode, Jira, Confluence

**CERTIFICATIONS**

<b>• Databricks Certified Generative AI Engineer Associate - Databricks</b>	<i>October 2025</i>
<b>• Machine Learning with Python - IBM</b>	<i>October 2023</i>
<b>• PG Program in Data Science - DataTrained</b>	<i>October 2023</i>
<b>• Big Data Certificate - DataTrained</b>	<i>October 2023</i>
<b>• Tableau Certificate - DataTrained</b>	<i>October 2023</i>
<b>• Azure AI Fundamentals - Microsoft</b>	<i>December 2023</i>