

SHIVANI PADAYA

DATA SCIENCE AND AI

CONTACT

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EDUCATION

- 2020
B.Tech (Information & Technology)
Gujarat Technological University
CGPA: 8

CORE COMPETENCIES

Data Science & Analysis

Generative AI

AWS

Predictive Analysis

Deep Learning & Neural Networks

Natural Language Processing

Exploratory Data Analysis

Prompt Engineering & Agentic AI

Data Transformation



PROFILE

- Senior **Data Scientist** with 3 years of expertise in **Machine Learning, NLP, Artificial Intelligence, and Python**.
- Experienced in working with **LLMs**, deploying ML models using **AWS services**, and optimising data pipelines for AI applications, with strong expertise in **data pipeline development**, building **proof-of-concepts (PoCs)**, and taking solutions from idea to product.
- Passionate about providing guidance to junior data scientists, helping them develop essential skills and achieve outstanding results.



WORK EXPERIENCE

Data Society

AUG 2022 - DEC 2024

Senior Data Scientist

Key Result Areas:

- Spearheaded research initiatives, design AWS infrastructure, and testing applications.
- Tested multiple models to evaluate and select the most suitable embedding models tailored to specific data and project requirements.
- Cloud Infrastructure & Automation:** Built scalable AI system using AWS services (Bedrock, Lambda) streamlining workflows.
- Developing backend systems, conducting prompt engineering, refining retrieval pipelines, and chunking.**
- Implemented CI/CD practices to ensure efficient development and deployment processes, enhancing productivity and reliability.**

Projects:

LLM Powered RAG based Video Summary and Recommendation Service

- Engineered a LLM-powered system to automate the generation of video summaries and transcriptions, while leveraging similarity search with **Retrieval-Augmented Generation (RAG)** and a **vector database**, streamlining video navigation on web platforms and eliminating manual effort.
- Applied **tool-calling** techniques to generate desired outcomes from LLMs in structured and predefined formats.
- Implemented **chunking strategies** and conducted experiments with **embedding models**, enhancing retrieval efficiency in the RAG pipeline by 30% to 40%.

Tools and Technologies

- Transformers (Anthropic's Claude, OpenAI's Whisper AI, HuggingFace embedding Models), Containerisation Technologies (e.g., Docker), Vector-based Retrieval, AWS SDK(Bedrock, Lambda, S3, OpenSearch), Python

TECHNICAL SKILLS

- Python, R
- PyTorch, TensorFlow, Scikit-learn, Keras, Numpy, Pandas
- Gen AI, Machine Learning, Deep Learning, LLMs, RAG
- NLP, Forecasting
- AWS (Bedrock, Lambda, S3, WorkSpaces, OpenSearch, Transcribe)
- MLflow, CI/CD, Docker
- Tableau, PowerBI, Excel
- Version Control and Agile Development (Bitbucket, Git, Jira)
- Vector Database

SOFT SKILLS

- Good listener
- Leadership
- Analytical thinking
- Problem solving
- Team work
- Collaboration
- Time management
- resource management

CERTIFICATES

- Certificate Program in Data Science using Machine Learning with R and Python
- Python for Data Science Bootcamp

Data Analytics and Visualisation Training Program for Financial Professionals - PM

- Led a data analysis training project for a UK-based bank, managing end-to-end delivery through direct client interactions and receiving excellent feedback.
- Collaborated with SMEs, conducted dry runs, and developed activities to ensure impactful learning outcomes.
- Designed and delivered training programs to enhance data literacy, creating tailored content for Data Visualisation and Analysis courses.

Data Society

May 2022 - July 2022

Junior Data Scientist

Key Result Areas:

- Spearheaded the creation of cutting-edge data science and data analytics with R EdTech programs tailored to the needs of multinational corporations
- Collaborated with cross-functional teams to define program objectives, content, and learning outcomes

Achievements:

- Successfully delivered innovative customised content, resulting in substantial growth in client acquisition and fostering long-term business relationships, contributing to the organisation's expanded market presence and revenue.



INTERNSHIP

AI Variant

Aug 2021 - Feb 2022

Data Science Intern

Projects:

CO2 Emission Forecasting and Compliance System

- Forecasted CO2 emission levels for an organisation to ensure compliance with government regulations.
- An end-to-end Python-based project utilizing libraries like NumPy, pandas, matplotlib, seaborn, statsmodels, and sklearn to forecast CO2 emission levels based on user inputs. A web application was developed using Streamlit for easy user interaction and real-time predictions.

Product Review Sentiment Analysis and Classification

- Performed sentiment analysis on product reviews to aid in production and market decisions.
- Developed an NLP-based sentiment analysis tool to assess customer feedback on bookshelf products. The project involved creating a classifier to categorize product reviews using Python libraries such as pandas, nltk, bs4, and Streamlit. The insights helped improve production and supply chain strategies based on customer sentiment.