Rhythm Bhavsar

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EDUCATION

Northeastern University May 2026
MPS in Applied Machine Intelligence Cumulative GPA: 3.8/4.0
Gujarat Technological University (GTU) May 2023
B.Voc in Software Development Cumulative GPA: 9.4/10.0

WORK EXPERIENCE

Voidek Webolutions Bardoli, India
Jr. Data Scientist January 2023 – June 2024

- Developed and deployed scalable ML models using AWS SageMaker, Lambda, and API Gateway, optimizing real-time data synchronization across CRM and ERP systems, which improved operational efficiency by 30% and minimized data inconsistencies.
- Fine-tuned the Llama model on personalized datasets to build an AI-powered chatbot, enhancing customer interactions and response accuracy. Additionally, experimented with Large Language Models (LLMs) like GPT and BERT to identify the most effective model for automating business-specific tasks and improving user engagement.
- Automated CRM-ERP integration using Deep Learning and NLP-based models, reducing manual intervention by 70% and significantly enhancing data accuracy and workflow efficiency. Fetched and processed large-scale real-time data from Putty Server using SQL, deployed models via Flask-based APIs, and ensured seamless integration with enterprise applications for end-to-end automation.

PROJECTS

AI-Powered Waste Recycle Management GitHub **February, 2025**

- Developed a **CNN-based** deep learning model using **TensorFlow** & **Keras** to classify waste types, utilizing **OpenCV** for real-time image preprocessing (edge detection, segmentation, and contour analysis).
- Built an **AI-driven recommendation** system that suggests biofuel production methods (**biodiesel, bioethanol**) based on chemical composition analysis and research insights.
- Designed and deployed a Flask/FastAPI-based web interface, enabling real-time waste classification and sustainable recycling solutions

Breast Cancer Detection Using Histopathology Images GitHub **December, 2023**

- Developed a **CNN-based** deep learning model to classify **IDC-positive** and **IDC-negative** cases from **histopathology** images, enhancing early breast cancer detection.
- Applied contrast **enhancement**, **normalization**, and **data augmentation** to improve classification **accuracy**, optimizing **hyperparameters** using **GridSearch** and **Transfer Learning (ResNet, VGG16)**.
- Deployed the model using Flask for real-time inference, enabling integration with healthcare applications to assist pathologists in diagnosis.

News Classification System GitHub **March, 2024**

- Designed an end-to-end **NLP pipeline** for web scraping, **text preprocessing**, and **feature engineering**, leveraging **NLTK**, **BeautifulSoup**, and **TF-IDF** vectorization.
- Built and optimized **LSTM** and **Bi-LSTM** deep learning models, experimenting with **Word2Vec**, **GloVe**, and **BERT-based** transformers, achieving **84.69%** classification accuracy.
- Deployed the system via a Flask-based **REST API**, enabling real-time news classification for content filtering applications.

CERTIFICATIONS AND TRAININGS

Advanced Certificate Program in Data Science Sept 2023 – May 2024
IIIT Bangalore & upGrad
Data Science Bootcamp Dec 2021 – May 2022
Odin School
Azure Administration Essential Training October 2024
LinkedIn Learnings

SKILLS

Programming Languages / Paradigms: Python, Functional Programming, Object Oriented Programming (OOP)
Artificial Intelligence: Deep Learning, Computer Vision, Natural Language Processing, Neural Networks, Fine-Tuning LLMs (Llama)
Machine Learning: Transformer Models (BERT, GPT), Reinforcement Learning, TensorFlow, Keras, Torch, Chatbot Development
Data Science / Analytics: IPython / Jupyter Notebook, SQL, Excel, Tableau, Web Scraping, Data Processing & Transformation
Cloud & Deployment: AWS (SageMaker, Lambda), Docker, Flask/FastAPI, REST APIs, Model Deployment & Monitoring
Libraries: NumPy, Pandas, Scikit Learn, TensorFlow, PyTorch, NLTK, Seaborn, Matplotlib, Beautiful Soup, Hugging Face Transformers