# Rhythm Bhavsar

rhythmdb0525@gmail.com | + 1 (857)-544-3824 | Portfolio | LinkedIn | GitHub

## 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 **Machine Learning** models using **AWS SageMaker**, **Lambda**, and **API Gateway**, boosting operational efficiency by **30%** through real-time data synchronization improvements.
- Fine-tuned the **Llama** model on **personalized** datasets, building an advanced chatbot to enhance customer interactions and improve response accuracy.
- Experimented with various **Large Language Models (LLMs),** including **GPT** and **BERT**, to optimize performance and determine the most effective model for specific use cases.
- Automated **CRM-ERP** integration using **Deep Learning** and **NLP** models, reducing human intervention by **70%** while improving data accuracy and workflow efficiency.
- Managed large-scale data processing from **Putty** Server using **SQL**, deployed **Flask-based APIs** for seamless model integration, and monitored model performance post-deployment..

## 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