# **Diptadeep Sinha**

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#### **EDUCATION**

VIT Bhopal University, Bhopal, Madhya Pradesh

BTech in Computer Science and Engineering

Modern Higher Secondary School, Agartala, Tripura, 12th Standard

Central Board of Secondary Education

Ramakrishna Mission Vidyapith, Deoghar, Jharkhand, 10th Standard

Central Board of Secondary Education

May 2026

CGPA: 8.80/10

March 2022 Percentage: 86.62/100

March 2020

Percentage: 95.60/100

## TECHNICAL SKILLS

Programming Languages: Python, C++,HTML

Tools and Technologies: Transformers ,PyTorch,TensorFlow.

Field of Interest: Artificial Intelligence, Machine Learning and their applications in Natural Language Processing, healthcare, finance.

Languages: Fluent in English, Hindi, Manipuri, Conversational Proficieny in Bengali

## **PROJECTS**

VibeValue Aug 2023 – Nov 2023

Language Model for Sentiment Analysis of Financial Statements

Python, Transformers, PyTorch, TensorFlow

Engineered a specialized sentiment analysis model for financial texts using BERT, achieving a 98% accuracy rate in sentiment classification.

Trained and customized a BERT model on financial datasets (e.g., FiQA, Financial PhraseBank) by integrating domain-specific embeddings and optimizing attention layers for improved sentiment classification.

Achieved 98% accuracy, 97% precision, and an F1-score of 97%, outperforming LSTM, ELMo, ULMFiT, and other traditional models on a 15,000-annotated-statement financial dataset.

Demonstrated the efficacy of leveraging BERT for financial sentiment analysis, significantly improving accuracy and enabling nuanced insights for decision-making in financial markets.

**AlzAware** Feb 2024 – Apr 2024

Image Classification of MRI Brain Scans for Alzheimer's Detection

Python, TensorFlow

Developed AlzAware, a deep learning framework using CNNs and transfer learning on 12,000+ MRI scans, offering a non-invasive, scalable tool that improved early Alzheimer's detection rates by 25%.

Implemented methods including transfer learning with pre-trained models, data augmentation for robustness, and optimization with adaptive learning rates.

Achieved 99.41% accuracy with a validation loss of 0.1465.

TerraTech

Jan 2025 - Apr 2025

Whybrid Machine Learning Model for Agricultural Price Forecasting

Hybrid Machine Learning Model for Agricultural Price Forecasting

Python, LSTM, XGBoost.

Built a hybrid LSTM + XGBoost architecture to forecast prices for 22+ Indian crops, achieving 97.56% accuracy in time-series prediction.

Designed a full ML pipeline including data scraping, preprocessing, model training, real-time prediction, and dashboard visualization. Enhanced model accuracy using lag features, rolling statistics, and trend decomposition for better recognition of seasonal patterns.

### CERTIFICATIONS

- MERN Full Stack Certification Program.
- · NPTEL Online Certification in Cloud Computing
- NPTEL Online Certification in Marketing Analytics
- Bits and Bytes of Computer Networking offered by Google from Coursera