# **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++, Java, HTML

Tools and Technologies: TensorFlow, PyTorch, Transformers

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 for Finacial Statements

Python, Transformers, Pytorch, Tensor Flow,

- Engineered a specialized sentiment analysis model for financial texts using BERT, achieving a 98% accuracy rate in sentiment classification.
- The BERT model was trained on financial domain-specific datasets viz. Financial PhraseBank, FiQA, and a financial news sentiment each consisting of more than 5000 unique annotated statements to enhance sentiment analysis accuracy
- Model Details: Customize BERT model by integrating financial domain-specific token embeddings, optimizing attention mechanisms, and fine-tuning output layers for sentiment classification.
- Achieved 98% accuracy, 97% precision, and F1 scores of 97%, outperforming LSTM, ELMo, ULMFit, and other traditional models in financial sentiment analysis on a 15,000 annotated finacial statment consisting dataset.
- VibeValue demonstrates the efficacy of leveraging BERT for financial sentiment analysis, significantly enhancing accuracy and providing nuanced insights crucial for decision-making in financial markets. The model's superior performance underscores its potential to contribute robustly to sentiment analysis applications across diverse financial domains.

AlzAware Feb 2024- Apr 2024

Image Classification Of MRI Image of Brain to detect Alzheimers

Python,Tensorflow

- •Developed AlzAware, a deep learning-based framework for early detection of Alzheimer's disease, leveraging convolutional neural networks and transfer learning on neuroimaging data consisting of more than 12,000 classified images.
- The developed algorithm overcomes the limitations of existing diagnostic approaches by providing clinicians with a reliable, non-invasive, and scalable tool for detecting Alzheimer Disease pathology at its earliest stages with improved early detetion rates by 25%)
- Other methods used in this project include Transfer Learning with Pre-trained Models, Data Augmentation for Robustness and Optimization with Adaptive Learning Rates
- · AlzAware achieved a accuracy of 99.414% with a validation loss of 0.1465

#### CERTIFICATIONS

- · NPTEL Online Certification in Cloud Computing
- NPTEL Online Certification in Marketing Analytics
- · Python Essentials in Vityarthi
- · Bits and Bytes of Computer Networking offered by Google from Coursera