

# MANANSINH SANDHALIYA

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## Education

### VIT Bhopal University

October 2022 - Present

Bachelor of Technology in Computer Science and Engineering (Specialization in AI - ML)  
CGPA: 8.48

Bhopal, Madhya Pradesh, India

## Relevant Coursework

- Data Structures
- Operating System
- Database Management
- Machine Learning
- Computer Vision
- Computer Networks
- Deep Learning
- Computer Architecture

## Projects

### Real Time Emotion Detector

Python, TensorFlow, Keras, OpenCV, NumPy, Streamlit, Scikit-learn

November 2023

- Designed and trained a custom CNN model with TensorFlow/Keras for accurate facial emotion recognition using the FER-2013 dataset.
- Achieved over 70% accuracy across seven distinct emotion classes, demonstrating strong model generalization.
- Developed real-time emotion detection using OpenCV, optimized to run smoothly at over 20 frames per second on webcam input.
- Built a user-friendly Streamlit interface enabling both live webcam and static image emotion detection testing.
- Implemented dropout, early stopping, and validation checkpointing techniques to reduce overfitting by 15%.

### Brain Tumor Detection Model

Python, TensorFlow, OpenCV, scikit-learn, Vision Transformer (ViT), DenseNet169

August 2024

- Engineered an end-to-end deep learning pipeline for multi-class brain tumor classification using MRI scans, integrating DenseNet169 and Vision Transformer (ViT) for spatial and contextual representation learning.
- Preprocessed and augmented over 3,000 annotated brain MRI images using OpenCV, rotation, flipping, and contrast adjustments to enhance dataset diversity and ensure better model generalization and robustness.
- Obtained a state-of-the-art 99.85% test accuracy across four brain tumor classes (glioma, meningioma, pituitary tumor, and no tumor), outperforming existing academic and clinical baselines.

### DeceptiNet – Real-Time Digital Deception Detection System

Python, Flask, scikit-learn, TensorFlow, BeautifulSoup, Pandas, NLTK, REST APIs

February 2025

- Developed and fine-tuned three fraud detection models for apps, clickbait, and fake news using 50,000 reviews, 3,000 headlines, and a Python library. Each model was trained and optimized for its specific domain
- Fine-tuned these classifiers using TensorFlow and scikit-learn frameworks to optimize performance for each fraud detection task individually.
- Reached consistent accuracy exceeding 92% across all fraud detection tasks by leveraging domain-specific training strategies and data preprocessing.
- Leveraged domain-specific data and techniques to enhance classifier performance and reliability.

## Certifications

Blockchain Developer Certification – IBM Career Education Program

MERN Full Stack Developer Certification – Issued by Ethnus via Codemithra

NPTEL Elite + Silver Medal – Privacy and Security in Online Social Media (Scored 80%, ranked in the top 2% of 10,000+ students)

## Technical Skills

Programming Languages: Python, C++, Java

Web Development: HTML, CSS, JavaScript, Django, SQL

Developer Tools: VS Code, Google Collab, Jupyter, kaggle

## Soft Skills and Hobbies

Languages: English, Hindi, Japanese, Gujarati

Drawing and Sketching, Chess, Cricket, Reading books

Leadership: Exhibited exceptional leadership by successfully leading my team in two university project exhibitions, achieving a S grade on both occasions