## Mitali Rawat

7974110708 | mitalirawat203@gmail.com | linkedin | github.com/mitalirawat20

## **EDUCATION**

Vellore Institute of Technology, Bhopal

CGPA: 8.58 B. Tech in Computer Science (Specialisation in Artificial Intelligence and Machine Learning) Sep. 2022 - Present

Delhi Public School, Indore Marks: 90%

XII2022

Marks: 93% Delhi Public School, Indore

2020

Experience

Core Member June 2023 - Jan 2025

E-Cell. VITB Bhopal

• Organized events and managed teams, showcasing leadership and collaboration skills.

- Built a network with industry professionals and peers, enhancing communication and networking abilities.
- Solved challenges in event planning and sponsorship acquisition, fostering creativity and adaptability.

## Projects

Heart Disease Diagnosis | Python, TensorFlow, Scikit-learn, Pandas, Matplotlib

- Engineered a binary classification model leveraging Artificial Neural Networks (ANN) to predict heart disease risk.
- Preprocessed and standardized data using Scikit-learn, splitting it into training and testing sets to ensure reliable evaluation.
- Incorporated dropout layers to mitigate overfitting, boosting the model's generalization capability.
- Achieved a test accuracy of 92% and visualized training/validation trends using Matplotlib.
- Analyzed performance using confusion matrices, achieving actionable insights for healthcare applications.
- Documented the work in a research paper discussing its impact and applications.

Plant Disease Detection | Python, TensorFlow, Streamlit, Pandas

- Developed a CNN-based model to detect plant diseases using images and provided recommendations for treatment.
- Integrated the trained model into a web application using Streamlit for easy user interaction.
- Deployed data augmentation techniques, enhancing model robustness and training efficiency.
- Achieved an accuracy of 95% on validation data, ensuring high reliability for disease classification.
- Delivered real-time treatment recommendations, empowering farmers with actionable solutions.

Driver Drowsiness Detection System | Python, YOLOv5, OpenCV, PyTorch

- Designed a real-time driver drowsiness detection model using YOLOv5 and OpenCV for facial feature recognition.
- Trained the model on custom datasets with PyTorch to identify signs of fatigue such as eye closure and yawning.
- Achieved a detection accuracy of 90% and ensured efficient inference in real-time scenarios.
- Implemented alert mechanisms, enhancing driver safety in high-risk scenarios.
- Optimized the model for deployment by reducing size and improving inference speed.

MindBandhu - Mental Health Chatbot | Python, Gemini API, Hugging Face, Flask, NLTK, Transformers, Googletrans

- Developed an AI-powered mental health chatbot that provides emotionally intelligent responses using Google's Gemini LLM.
- Integrated emotion detection using a BERT-based Hugging Face model to tailor replies and suggest self-care tips.
- Implemented multilingual support (default English, switchable by user), enabling culturally inclusive conversations.
- Designed user-specific context memory for personalized chat flow and used prompt engineering for short, empathetic replies.

## Technical Skills

Languages: Python, C++, Java, SQL

Frameworks: Supervised/Unsupervised Learning, Deep Learning, CNN, NLP, YOLOv5, PyTorch

Tools and Libraries: TensorFlow, Keras, Scikit-learn, Pandas, NumPy, Hugging Face, NLTK, Seaborn, Generative AI,

Matplotlib

Soft Skills: Effective Communication, Analytical Thinking, Flexibility, Eagerness to Learn