Aditi

(+91) 8381851710 | missaditisrivastava@gmail.com | LinkedIn | GitHub

PROJECTS

Annadata: Full-Stack AI-Based Crop Recommendation System (LightGBM, Flask, HTML/CSS, Plotly)

– Designed and deployed a full-stack AI application to recommend optimal crops based on soil and climate data.
– Trained a LightGBM model on a dataset with 2200+ records covering NPK levels, temperature, humidity, pH, and rainfall.
– Built a Flask backend to serve model predictions via a REST API; integrated with an intuitive frontend using HTML/CSS.
– Visualized prediction insights using Plotly and Seaborn; hosted project on GitHub for accessibility.
– Empowers farmers and agri-tech platforms to make data-driven crop decisions for sustainable farming.

Evaluation of Oxygen Saturation in the Blood through a Non-Invasive Method (Arduino, MAX30100, IoT)

– Developed a low-cost, non-invasive system to measure SpO2 and heart rate using MAX30100 sensor with Arduino UNO.
– Implemented signal processing techniques to interpret photoplethysmographic (PPG) signals for accurate data acquisition.
– Addressed challenges related to voltage levels and I2C communication by optimizing circuit design and resistor configuration.
– Proposed practical applications in telemedicine and home healthcare, contributing to accessible health monitoring solutions.

Textual Fingerprinting: Distinguishing Human vs AI Writing (Python, BERT, ML)

– Engineered a binary text classifier using the BERT transformer model to identify AI-generated content versus human writing.
– Processed large datasets from Kaggle and human sources using tokenization, embedding, and vectorization for model input.
– Achieved high validation accuracy by fine-tuning BERT on balanced text samples; evaluated with F1-score and confusion matrix.
– Developed the solution to support content authenticity initiatives and aid in misinformation detection efforts.

TECHNICAL SKILLS

Languages: Java, Python, C
Web Development: HTML, CSS, ReactJS, MongoDB, JavaScript, MERN
Tools/Platforms: Git, GitHub, VS Code, GitLab

ACHIEVEMENTS

– 5-Star Problem Solver on HackerRank in Java and Python
– Solved DSA problems on LeetCode with peak rating **1984**.
– Completed a technical writing internship at **GeeksforGeeks** (2023–2024).
– Social Media Team Lead **GeeksforGeeks CLUB VIT BHOPAL University**.

CERTIFICATIONS

Generative AI – IBM Center for Excellence

EDUCATION

VIT Bhopal University	2022 – 2026
B.Tech. in Computer Science and Engineering	*CGPA: 8.57 / 10*
Academic Global School	2021
Central Board of Secondary Education	*Percentage: 90%*
St. Anthony's Convent School	2019
Central Board of Secondary Education	*Percentage: 93.1%*

EXTRACURRICULAR ACTIVITIES

Instagram Content Creator	Ongoing

Crochet — Painting — Music — Cooking

– Run a creative Instagram page with over 4,000 followers showcasing self-made crochet items, artworks, music covers, and culinary content.
– Demonstrate content strategy, personal branding, and audience engagement through storytelling and regular posting.