Diya Shah

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Education

VIT Bhopal University Bhopal, Madhya Pradesh Oct 2022 – Expected May 2026
B-Tech
Major in Computer Science with specialization in Artificial Intelligence and Machine Learning
Cumulative GPA: 8.95/10

Technical Skills

Python | Java | SQL | Pandas | NumPy | Matplotlib | Scikit-learn | TensorFlow | Keras | XGBoost | Jupyter Notebook | Excel | MySQL | PostgreSQL | Hugging Face Transformers | OpenCV | Data Cleaning | EDA | Statistical Analysis | Regression | Clustering

Projects

PDF Whisperer – AI-Powered Document Summarization System Feb 2025 – Mar 2025
(Python, Hugging Face Transformers, OCR, Gradio, FastAPI)

- Engineered an AI system to summarize and answer questions on legal and academic PDFs leveraging Hugging Face transformer models (flan-t5-large, longformer), increasing document processing efficiency by 60%.
- Integrated OCR support and expanded compatibility to .docx and .txt files, ensuring 95%+ document type coverage across use cases.
- Developed multi-user Q&A with context memory, slashing response time to under 3 seconds per query on GPU, improving user interaction speed by 70%.
- Attained 98% positive user feedback in a trial with 25+ users, demonstrating high usability and accuracy.

Plant Malady Detection using CNN Jan 2024 – May 2024
(Python, TensorFlow, OpenCV, CNN, Data Augmentation, Model Evaluation)

- Architected and fine-tuned a CNN model to detect plant diseases using a dataset of 15,000+ annotated images, achieving 96% disease classification precision.
- Attained 98.54% training accuracy and 95.73% validation accuracy, ensuring strong model generalization.
- Applied advanced preprocessing, data augmentation strategies, and performance evaluation (F1-score: 0.95), enhancing model robustness.
- Deployed a real-time prediction tool supporting multiple plant species, enabling instantaneous disease detection with sub-second latency.

Diet Recommendation System using Machine Learning Aug 2023 – Nov 2023
(Python, Scikit-learn, Streamlit, Data Analysis, BMI Calculation Algorithms)

- Designed and deployed a web application providing personalized diet plans based on BMI, BMR, and activity levels, boosting user engagement by 45%.
- Integrated FastAPI backend with Streamlit frontend, achieving real-time dietary suggestions and interactive data visualization.
- Analyzed feedback from 100+ users to iteratively improve recommendation accuracy and enhance UI responsiveness, raising satisfaction by 20%.
- Delivered a modular system architecture enabling seamless future integration into fitness applications, cutting development time by 30%.

Extracurricular Activities & Achievements

- Participated in Science and Technology Fest at MANIT Bhopal Jan 24, 2023
- Volunteered at blood donation camp, VIT Bhopal University
- Authored “Understanding the Constraints of YOLO in Pedestrian Recognition: Issues and Innovations,” recognized by VIVIBHA 2024 for advancing practical object detection research.