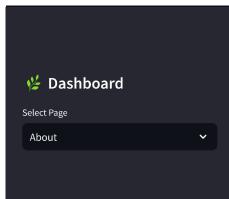
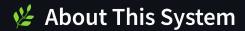
4/1/25, 3:09 PM Plant Disease Analyzer





Advanced Plant Disease Detection System

This application combines two powerful AI technologies:

1. YOLO (You Only Look Once) Object Detection

- Precisely locates and identifies diseased areas on plant leaves
- Trained on annotated images to recognize specific disease patterns
- Provides bounding boxes around affected areas with confidence scores

2. Hybrid CNN with Attention Mechanism

- Deep learning model specifically designed for plant disease classification
- Uses attention mechanism to focus on the most important features
- Trained on the PlantVillage dataset with 38 different plant disease classes

Technical Details

- The YOLO model is built using the Ultralytics YOLOv8 framework
- The Hybrid CNN uses TensorFlow with custom attention blocks
- Both models work together to provide comprehensive disease analysis



The system is trained on the PlantVillage dataset, which contains over 70,295 images of healthy and diseased plant leaves across various crops.



Developed using:

- TensorFlow and Keras for deep learning
- Ultralytics YOLO for object detection
- OpenCV for image processing
- Streamlit for the web interface

localhost:8501/#4aaa3f8e

For more information or to report issues, please contact the development team.