

Plant Leaf Disease Detection and Classification Using AI and Computer Vision Techniques

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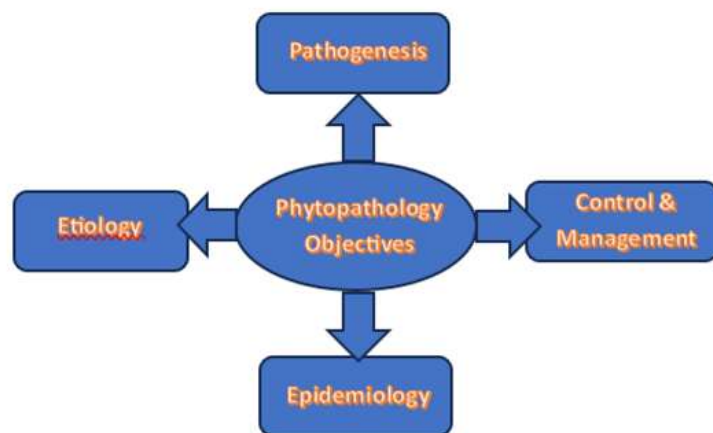
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Introduction

This project focuses on detecting and classifying plant leaf diseases using artificial intelligence and computer vision techniques. By analyzing images of plant leaves, the system can accurately identify the type of disease present, if any, from a wide range of 72 different classes covering various crops like tomato, apple, potato, corn, and more.

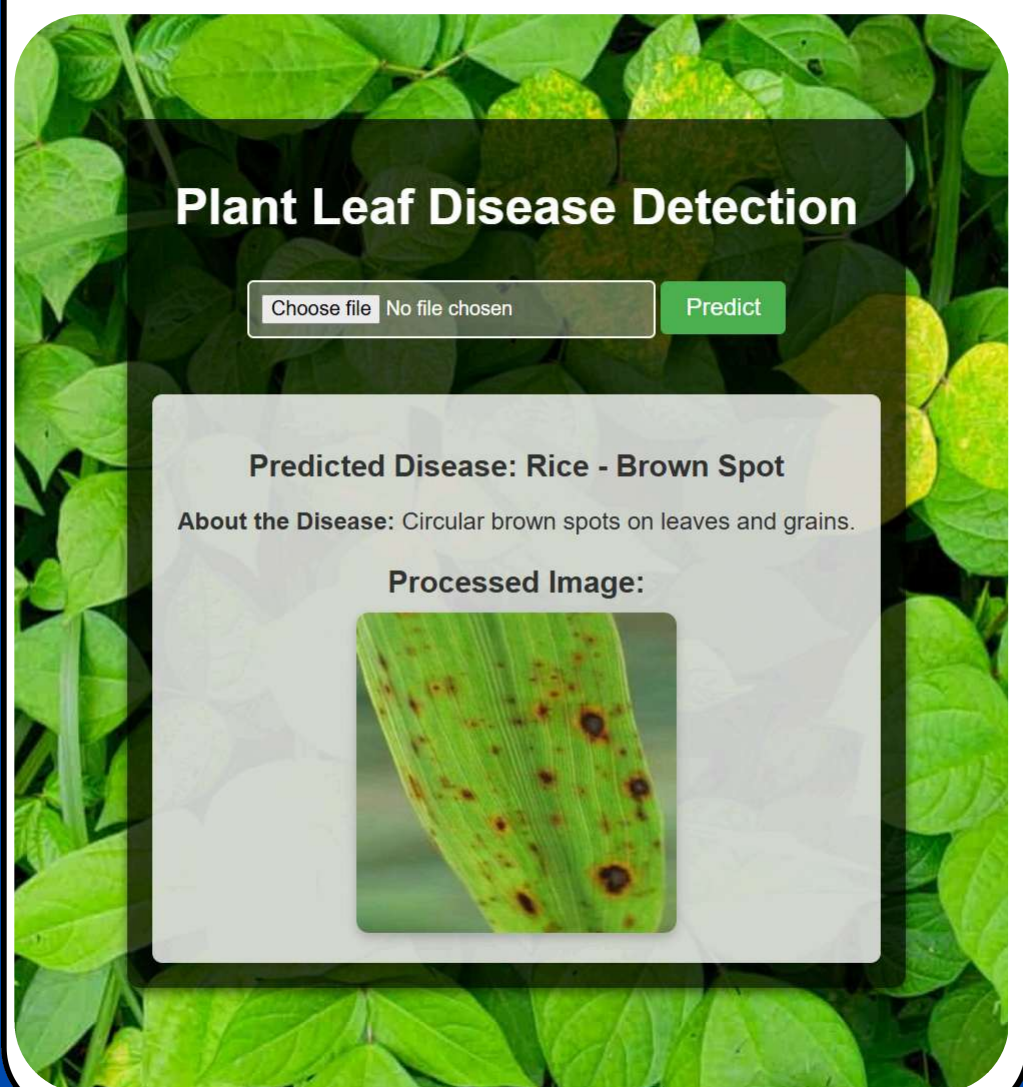
The model is powered by deep learning and integrated into a user-friendly web application using Flask. Users can upload a leaf image, receive the predicted disease name, and view a brief description along with the processed image—all within seconds. This tool aims to assist farmers and agricultural experts in early diagnosis, promoting timely and effective crop treatment.



Application

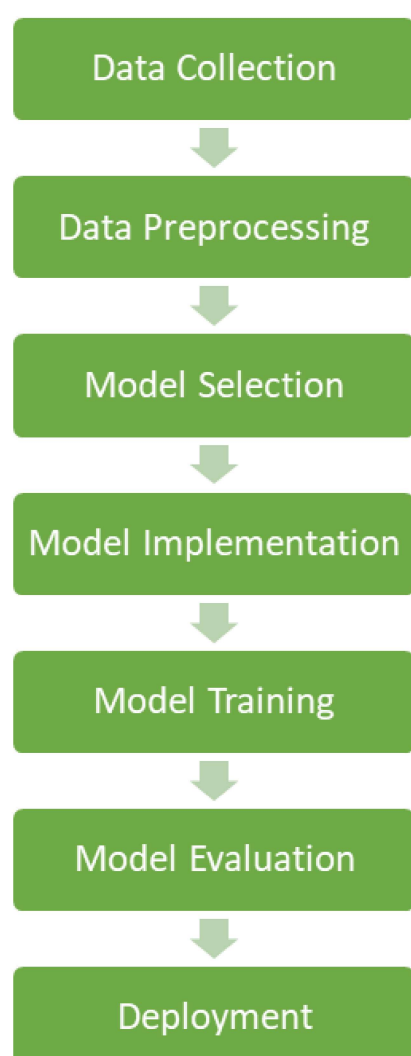
1. Improved Crop Health and Yield
2. Empowering Farmers
3. Reduction in Chemical Usage
4. Economic Gains
5. Scalable and Efficient Disease Management

Output



Methodology

1. Data Collection & Pre-processing
2. Model Selection & Implementation
3. Model Training & Evaluation
4. Deployment on Local Web Application



References

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