PLANT DISEASE DETECTION CLASSIFICATION SYSTEM

Project ID : 04-10-02

Introduction

This project aims to detect rice leaf diseases using deep learning models, including VGG16, MobileNet, ResNet55, and a custom-built CNN. The system is designed to classify rice leaf images into four disease categories, helping in early detection and effective disease management. A user-friendly graphical interface is also included to make the system easy to use for farmers and researchers.

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Course Code: CS487

Course Name: Pattern Recognition

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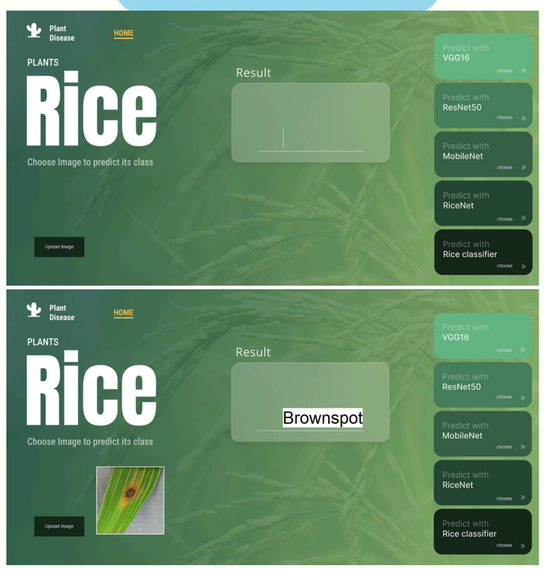
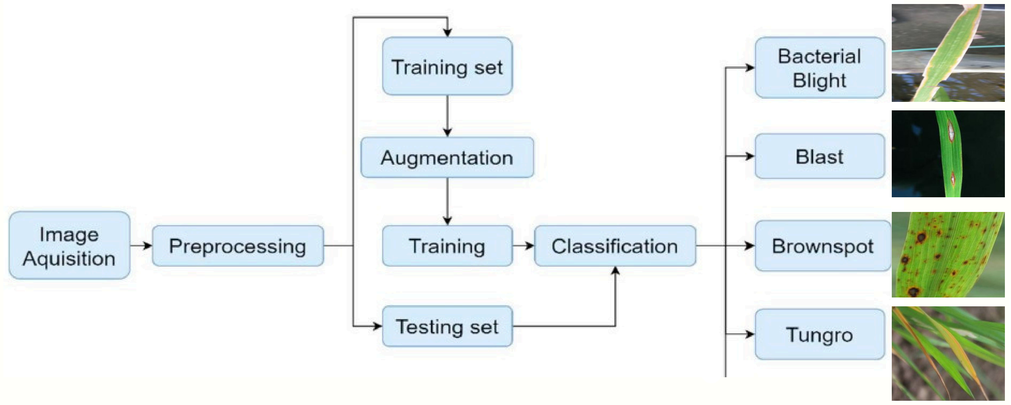
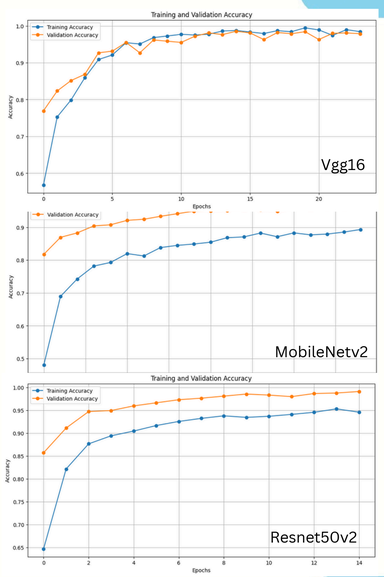
System UI



System Architecture



Results



All Models Comparisons

Model	Accuracy
VGG16	0.9966
Resnet50v2	0.9944
MobilNetv2	0.9574
RiceNe	0.9832
RiceClassifier	0.9709

References

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4. Ahad, M. T., Li, Y., Song, B., & Bhuiyan, T. (2023). *Comparison of CNN architectures for rice disease classification*. https://doi.org/10.1016/j.aiia.2023.07.001

Contact

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Tools

TensorFlow kaggle

Deep Minds 4