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Rice Plant Disease Prediction using Transfer Learning

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Abstract: *Rice is one of the most important food crops worldwide, and its yield is often threatened by various diseases. Early detection and accurate diagnosis of these diseases are crucial to ensure optimal crop management and reduce yield losses. In recent years, deep learning-based approaches, such as convolutional neural networks (CNN) and transfer learning, have shown great potential for disease detection in plant images. In this study, we propose a novel framework for rice plant disease prediction using CNN and transfer learning. The proposed method is based on a pre-trained CNN model, which is fine-tuned using a dataset of rice plant images with different disease symptoms. The performance of the proposed method is evaluated using various evaluation metrics, and the results demonstrate that it can accurately detect and classify rice plant diseases with high accuracy. The proposed method has the potential to serve as an effective tool for automated disease detection and diagnosis in rice crops, enabling farmers to take prompt action to prevent the spread of diseases and minimize yield losses.*

Keywords: CNN, Image processing, Transfer Learning

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