Performance Analysis of Plant Leaf Disease Detection Using Machine Learning

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Abstract: *There is some most extensively planted vegetable crop in India's agricultural lands. Although the tropical environment is favorable for its growth, specific climatic conditions and other variables influence plant growth. In addition to these environmental circumstances and natural disasters, plant disease is a severe agricultural production issue that results in economic loss. Therefore, early illness detection can provide better outcomes than current detection algorithms [2]. As a result, deep learning approaches based on computer vision might be used to detect diseases early. This study thoroughly examines the disease categorization and detection strategies used to identify plant leaf diseases. The pros and limitations of the approaches provided are also discussed in this study. Finally, employing hybrid deep-learning architecture, this research provides an early disease detection approach for detecting plant leaf disease [1].*

Keywords: Artificial Intelligence, Convolutional Neural Network (CNN), deep learning, leaf disease, tomato leaf, and multiclass classification.

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