Grape Leaf Disease Identification and Classification using Deep Learning

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Abstract: *In the Indian agricultural context, where crop quality profoundly influences farmers' profits, safeguarding crops from potential threats is paramount. Our proposed solution employs deep learning, specifically Convolutional Neural Networks (CNNs), to detect and classify grape leaf conditions accurately. By analysing image datasets, our system efficiently predicts grape leaf disorders and provides actionable recommendations. Through training the CNN with publicly available plant disease images and employing various visualization methods, we observed that neural networks can effectively mimic human decision-making processes in diagnosing issues, thus holding promise for enhancing agricultural practices and minimizing crop losses in the future.*

Keywords: In-Deep learning, Transfer Learning, Convolutional Neural Network.

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