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Efficient Use of Convolutional Neural Networks for Classification of Sugarcane Leaf Diseases

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Abstract

Early identification and diagnosis of plant diseases are more crucial for holistic development of the agriculture sector in India. Farmer's general estimates and observations are time costly, sometimes vague and misjudged. For this purpose, a appropriate deep neural network is proposed for the automatic identification of sugarcane disease. The classification involves 5 types of diseases and 1 healthy class. Experimentation is performed over the manually collected dataset of size 1470 images. Performance estimation of the network is dependent on the choice of optimization. In this paper comparative analysis for different optimizers