

Crop Leaf Disease Detection Using Convolution Neural Network

Chaskar Prasad¹, Dhage Shubham², Vaidya Shubham³, Chavan Abhijeet⁴, Dr. Swati Bhavsar⁵

Student Department of Computer Engineering¹²³⁴

Professor, Department of Computer Engineering⁵

Matoshri College of Engineering and Research Centre, Nashik

Savitribai Phule Pune University, Nashik, India

Abstract: It has become inevitable in recent years to use technology to promote agricultural awareness. Seasonal climatic conditions are also altering in respect to important assets like land, water, and air, causing food insecurity. Crop production rates are always falling short of meeting demand in this climate, necessitating the development of a smart system capable of dealing with the problem of diminishing agricultural output. To solve this problem, we propose a system that provides accurate plant disease diagnostics and crop selection based on economic and environmental parameters to maximise production for farmers, therefore assisting in meeting the country's growing food supply need. The proposed technique makes use of machine learning to provide predictions. In order to maximise production for farmers, the system will give many types of disease detection and crop selection based on soil weather factors suited for the crop. Crop production is forecasted using parameters such as rainfall, temperature, area (in hectares), season, and so on. The approach also helps in identifying whether a specific fertiliser is suitable for use. Crop disease detection and yield prediction are major agricultural concerns. Every farmer wants to know how much yield will be produced and whether it will meet their expectations. Previously, yield prediction was calculated by looking at a farmer's previous experience with a certain crop. Weather, pests, and harvest operation planning all have a large impact on agricultural productivity and crop health. Accurate disease and crop yield history is crucial for making agricultural risk management decisions..

Keywords: Image Classification, Crop Recommendation, User authentication, Classification

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