PlantPulse

Submitted to: Dr Paulin Paul

Submitted by: Sneha Jose

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ABSTRACT

Plantpulse is an innovative web-based forum designed to cater to the diverse needs and interests of plant enthusiasts, including gardeners, product purchasers, and experts. The platform comprises four main modules: Admin, Customer, Botanist, and Horticulture Expert.

Admin manages system operations, including user and product management, while Customers can browse and purchase plants, seek consultations from Botanists, and receive guidance from Horticulture Experts. Botanists offer plant-related consultations and utilize advanced features such as automated disease detection using CNN to ensure plant quality. The methodology encompasses stages like dataset collection, preprocessing, CNN model selection, training, evaluation, optimization, and deployment. Horticulture Experts provide assistance in plant development, tutorials, blogs, and live alerts.

By collecting and preprocessing real-world datasets, the models are trained, evaluated, and optimized, ultimately aiding farmers in early disease detection and suggesting appropriate treatments. This holistic approach aims to increase crop yields, reduce economic losses, and foster sustainable agricultural development in India. Through Plantpulse, we aim to provide a one-stop destination for plant-related queries, knowledge sharing, and disease management, ultimately empowering stakeholders in the agricultural sector.