TED UNIVERSITY

CMPE 491 – Senior Project I
Project Proposal

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SmartLeaf

SmartLeaf is an artificial intelligence–based plant analysis system designed to assist farmers and agricultural researchers in evaluating plant health from leaf images. The system applies image processing and deep learning techniques to identify plant diseases, estimate leaf health levels, and indicate possible nutrient deficiencies through automated visual assessment.

The main objective of SmartLeaf is to develop an intelligent agricultural decision-support system with an intuitive and clear web interface. The project aims to provide functionality for disease detection, health scoring, growth monitoring, and stress analysis using computer vision methods. By integrating these components, SmartLeaf intends to support reliable and objective evaluation of plant health conditions.

Web page: https://smart-leaf-nine.vercel.app/