

Qualitative analysis of wheat farm produce

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Introduction: The aim of this project is qualitative analysis of wheat farm produce with the help of computer vision model YoloV8. This model does foreign object detection on a given image of a sample of wheat farm produce which helps to determine the quality of that wheat produce by showing the counts of different types of foreign objects present in the sample. This project involves the whole process from scratch. It starts with a field visit to collect the samples, then collection and annotation of data, then after training the model and building backend and frontend in order to create a dashboard for the user to access the model.

How is this useful?: 1)Traders: helps traders scale their business because with the help of our tool they can get analysis of multiple wheat farm produce all at once by just sitting at their office. This removes the need for their subjective analysis which as a result removes the limitation which they previously faced that they have to be physically present during the auction.

2) Farmers: Can use this tool to get an objective analysis certificate showing the quality of his wheat farm produce that can be then shown to the traders before the auction.

3) Exporters: Crucial tool for someone who exports the farm produce to win the trust of their client by showing them objective analysis done by our model to ensure the quality of farm produce they are sending to their client.

Results:

