

AgriDoctor

Motivation :

Agricultural domain contributes significantly to our country in terms of economic enhancement. Farmers play a big role in this particular phase. Due to the lack of modern domain knowledge of the farmers about their respective crops' fruitful development, every year countless amounts of crops are getting wasted and destroyed which could have played a massive role in generating huge revenue for our country.

That's why we propose a Java web based application integrated with Artificial Intelligence (AI) named “AgriDoctor”, aiming to solve the problems described above, providing a user friendly environment, automating tasks, saving a bunch of time, educating farmers in a completely convenient manner, and generating healthy revenue.

Workflow

The application can be decomposed into 3 major parts

- ☐ Crop recommendation
- ☐ Fertilizer recommendation
- ☐ Plant disease prediction

Crop Recommendation:

User's can provide the soil data from their side and the application will predict which crop should the user grow based on the given input.

Fertilizer Recommendation:

User's can input the soil data and the type of crop they are growing, and the application will predict what the soil lacks or has excess of and will recommend improvements.

Plant Disease Prediction:

User's can input an image of a diseased plant leaf, and the application will predict what disease it is and will also give a little background about the disease and **suggestions to cure** it.

All the above predictions information will be provided by respective Machine Learning (ML) or Deep Learning (DL) models.

Some additional features can also be implemented such as multilingual (English and Bengali) service, User's feedback about the prediction which can be considered for further improvements of respective models.