TOPIC

SMART FARMING EMPOWERED BY ARTIFICIAL INTELLIGENCE AND INTERNET OF THINGS

INTRODUCTION

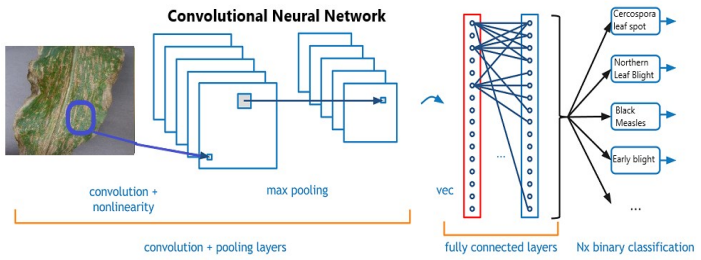
Agriculture is a major source of income in Ghana, thus playing an important role in the economy. Agriculture contributes to about 54% of the country's GDP. However, many choose to leave the field due to inadequate crop yield,late rainfall, scorching sun coupled with bush fires destroying crops in some areas, pest infestations, post-harvest losses. To make it worse is the lack of accurate and reliable agriculture data sets to make predictions with.

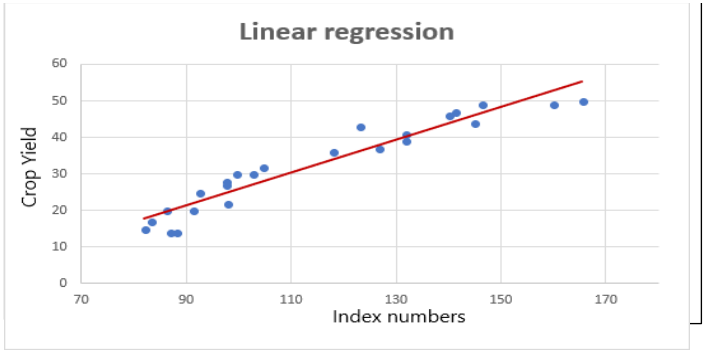
The team therefore deemed it necessary to bring a lasting solution this problem in the Agric sector.

DATASET

Diseased crop images
Crop pest images
Seasonal crop yield datasets

MODEL





CONCLUSION

The team share a passion of solving real world problems with modern practical and innovative solutions in Agriculture. We believe that our model will go a long way to curb a major menace in crop production on the continent and even beyond.

FUTURE WORK

1. We hope to gather a large enough data set for each cash crop
2. Our solution slightly modified in ways can be applied to other aspects of agriculture such as Poultry and Fishing industry

REFERENCE

Andrew Crane-Droesch 2018 Environ. Res. Lett.13 114003

Crop Yield Prediction Using Deep Neural Networks Saeed Khaki1, ∗, Lizhi Wang2

Machine learning to optimise growth and taste of plants

RESULTS

1. Gives advice to the farmer to get the maximum possible yield from the farm based on yield predictions.
2. Alerts the farmer on possible bush fires, pest infestation and disease migration patterns and other possible threats to the farm.
3. Monitoring climate conditions
4. Local Dataset generation of crop yield and crop health
5. Give the best crop to farm at a particular season.