Alpha Tech: AI Lab

USING ARTIFICIAL INTELLIGENCE TO EMPOWER SOCIETY

Teams members

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Lead in

- My team members share a passion of solving real world problems with modern practical and innovative solutions.
- Today we want to provide solutions to farmers in Ghana, The agriculture industry is the main source of income for many in Africa Unfortunately this source of income is constantly under multiple threats
- Namely inadequate and 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.

Our Solutions

- Get adequate data to make predictions
- Make available pest and disease diagnostic mechanisms
- Monitor climate conditions
- Predict best time to plant a particular seed to enhance yields.
- Recommend best practices based on the data collected

Our Solution-How it works

- Our solution to the problem is to make use of Artificial Intelligence (AI) and The Internet of Things (IoT)
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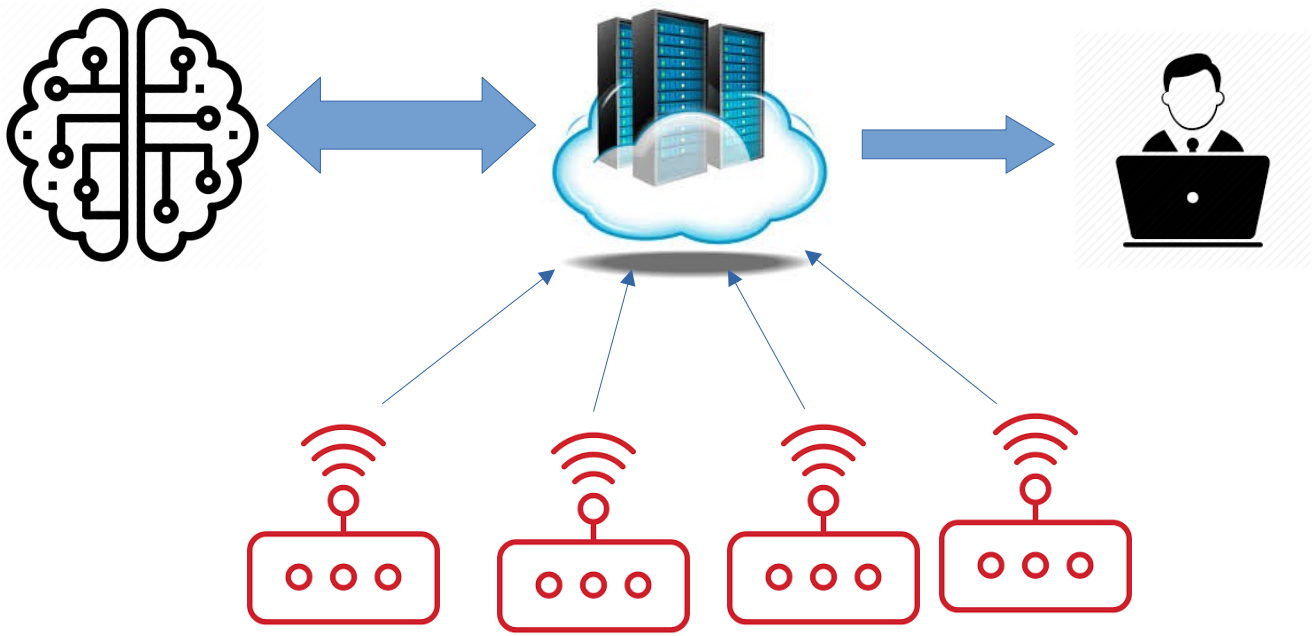
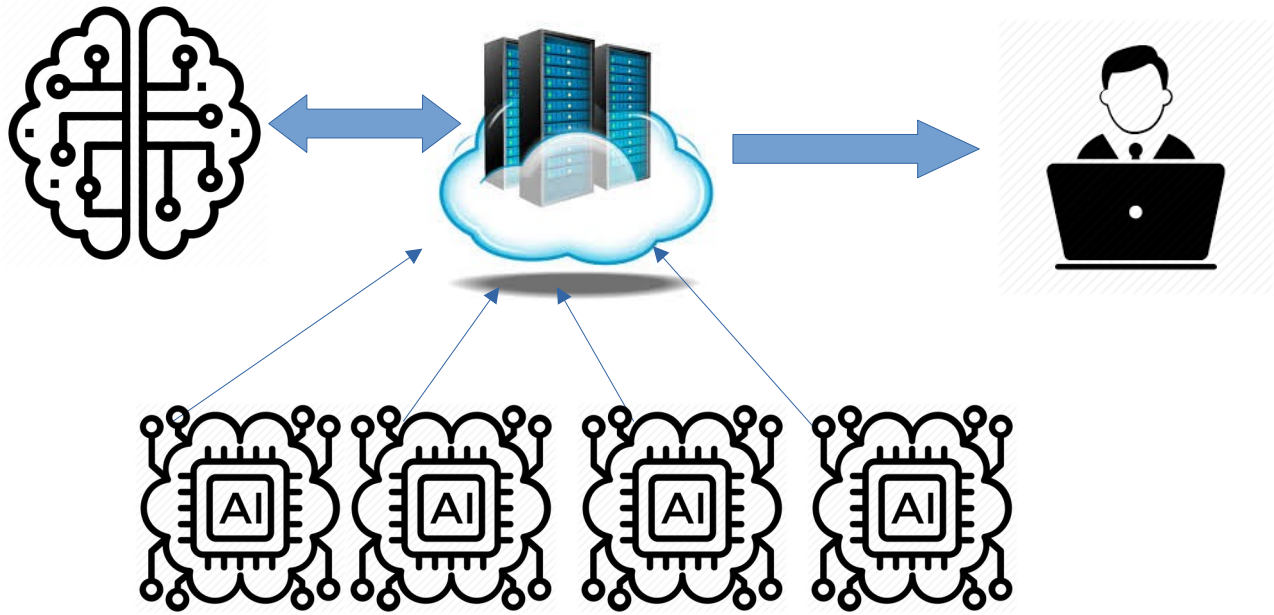
Our Solution – How it works



Each device collects data in terms of temperature, Humidity, sun light intensity, soil moisture levels.

Every data collected is sent to an online server, where it is stored and passed through a trained neural network using previous data for yield predictions.
From the yield predictions based on the crop the farm stakeholders are given analytically accurate advise in order for the farm to attain its maximum crop yield

Our Solution – How it works



The second device consist of a camera and plant disease and pests diagnostics software which will periodically picture of a plant and listen to the sounds on the farm to access the health of the plant and identifying of pests by using Deep learning Convolution Neural Network algorithms.

They will each have device IDs and be placed in a pattern so as know the migration pattern of a pest or disease.

The type of pest or disease and their migratory pattern will be send to an online server to notify the stakeholders of the farm.

Business model canvas

Key Partnerships

1. Suppliers

2. Farmers Association

3.Corporate Agriculture

Key Activities

1. Data Collection
2. Predict Yield
3. Pest and Disease Control
4. Recommendations

Key Resources

Electronic Components
Cloud servers
Data

Value Proposition

The use of Artificial Intelligence (AI) coupled with the Internet of Things (IOT).

Provides real time data on farm activities

Recommends solution to the problem based on the collected data of activities

Customer Relationship

Personal assistance

Channels

Direct Marketing
Digital Marketing
On-farm sales
Websites
Referrals

Customer segment

1. Farmers
2. Green House

Cost Structure

Revenue Stream

Revenues will be generated from sale of products and after sales services.

Thank You