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AGRI FARM

Crop Yield Predictor

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Introduction

Agribusiness owners encounter substantial difficulties in predicting crop yields accurately. This limitation impairs their capacity to make well-informed decisions regarding resource distribution, crop management techniques, and financial strategies.





Business Proposition

To design and implement a data-driven model to predict crop yields



Crop Yield Predictor

Data Collection & Processing

01

Crop yield data

Rainfall Data

Crop Price Data

Data sourced from MOFA

Cleaning and Exploratory

02

Feature Engineering

One-hot encoding

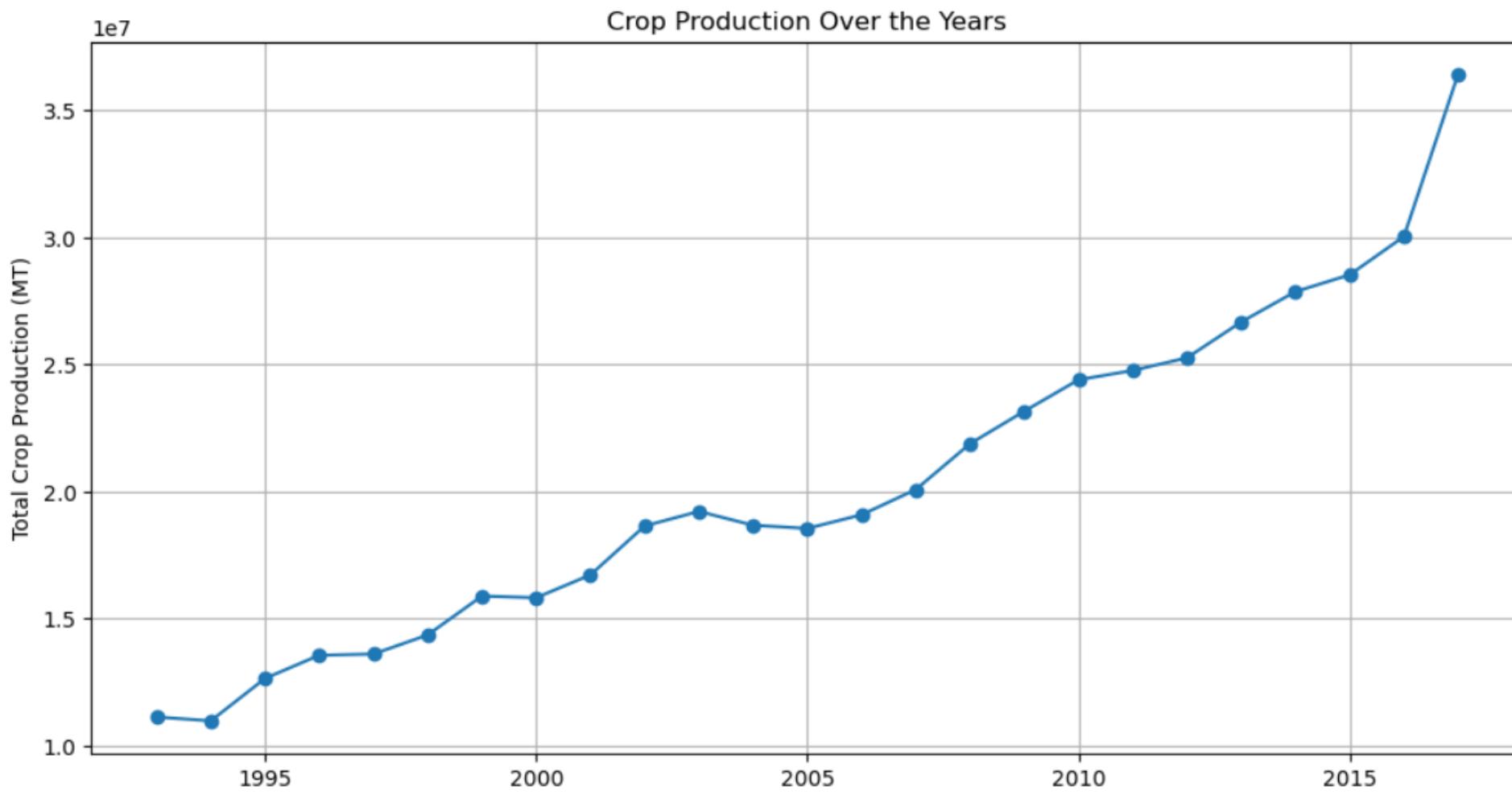
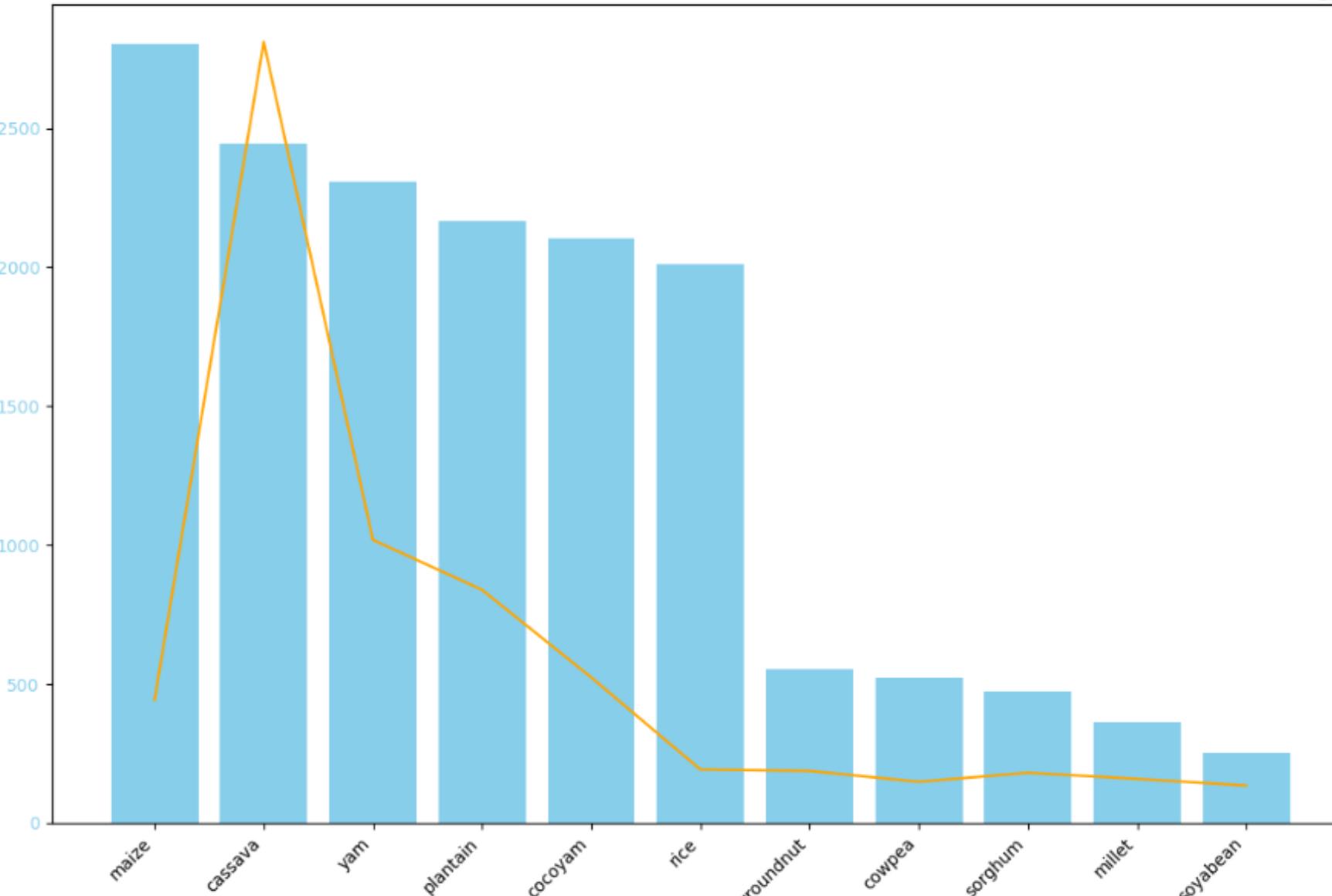
Scaling data with
standard scaler

03

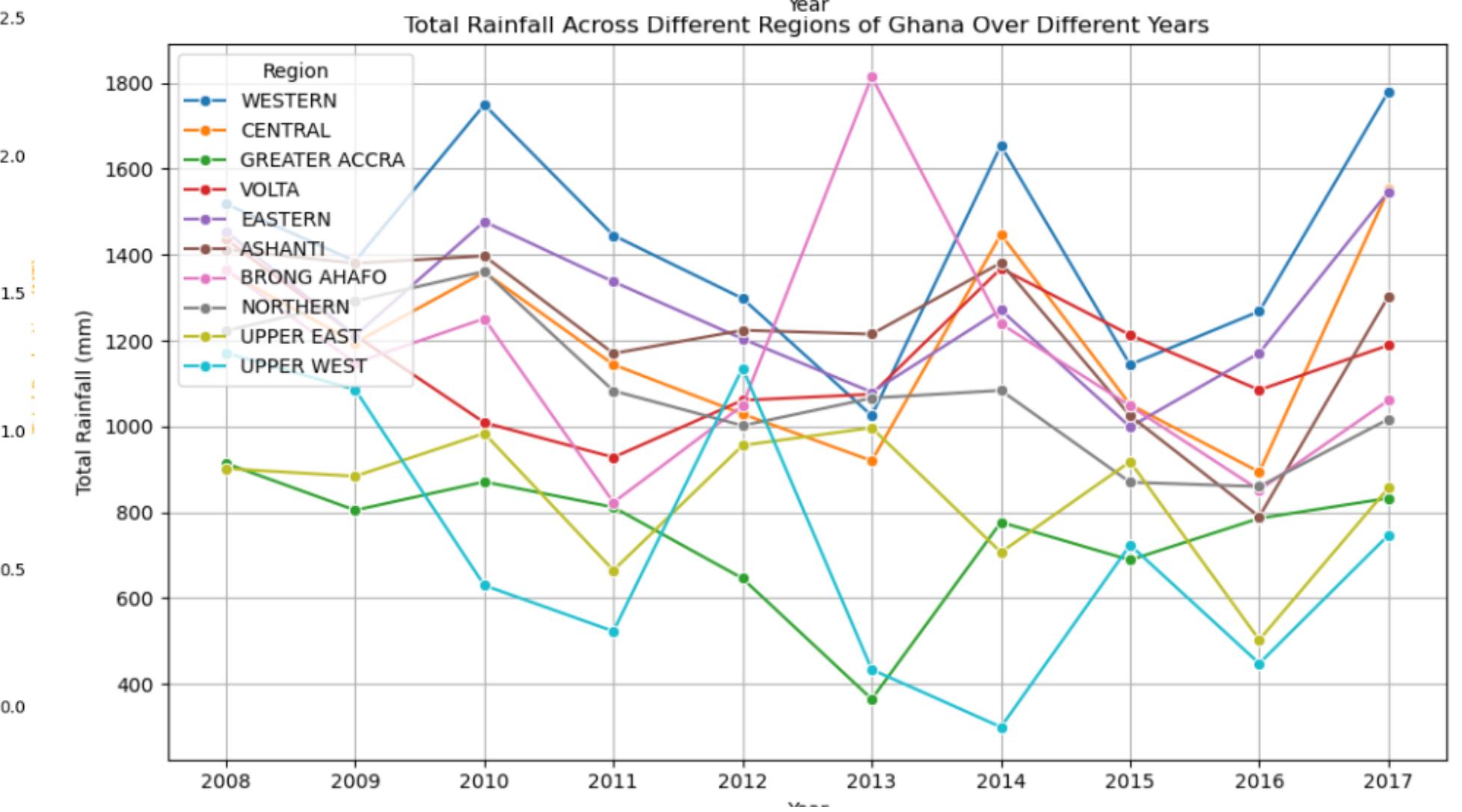
Select & Train Model

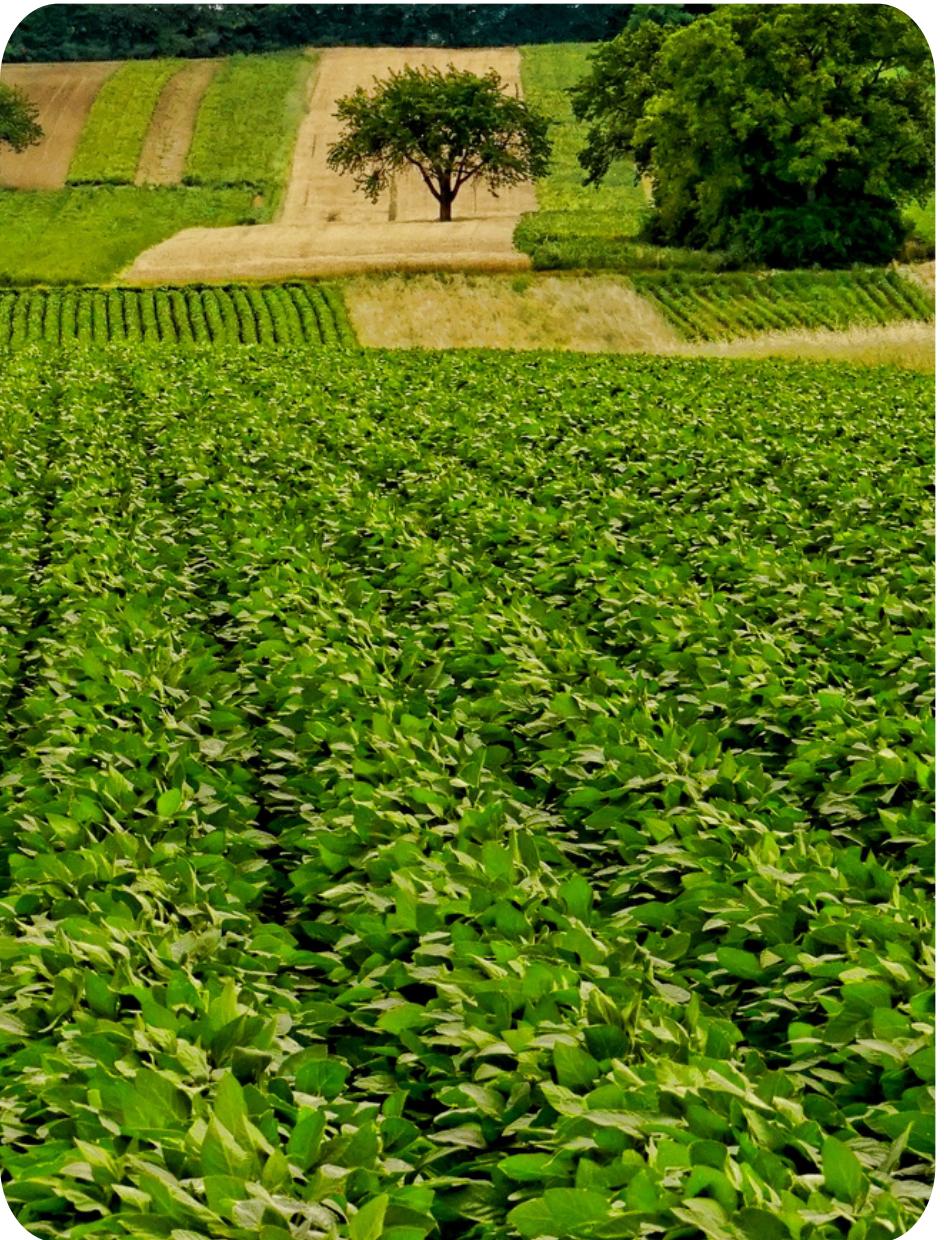
Data Insights

Most Commonly Cultivated Crops and Their Contribution to Total Production



Total Rainfall Across Different Regions of Ghana Over Different Years





Perfomance Metrics

Test data accuracy was 0.9786601859734292
train data accuracy was 0.9793848529122894

Mean Squared Error: 0.02796959008860077

Mean Absolute Error: 0.037905423819600596
Root Mean Squared Error: 0.2036885047463742

Lets try the App

App Deployment
hosted by
Streamlit





A vibrant green tea plantation with rolling hills and rows of tea bushes. A large orange rectangular graphic is positioned at the top center. A white horizontal bar with rounded ends covers the middle portion of the image. The word "THANKS" is written in large, bold, white capital letters on this bar.

THANKS

