AI-Powered Nutritional Analyzer for Fitness Enthusiasts

INTRODUCTION

Food is Essential for human beings, now days the food culture of the people is changing according to the population growth. This results in growth of fast food and junk food. By in taking the fast foods regularly the human beings become deficient to nutrients. This results in nutrition deficiency, the nutrition deficient people trying to intake the proper nutrition in their daily diet but somehow they can't able to do it. The main reason behind is most of the people don't know which fruit is rich in vitamin? Which fruit is rich in carbohydrates? Etc... .Why this confusion happen to them, because there is no proper technology to guide them.

To overcome that problem, we came with a system called AI-Powered Nutritional Analyzer for fitness Enthusiasts. This System resolves the doubts among people about nutrition present in the fruit. In this system the user need to capture the fruit whatever they are going to eat should be uploaded, then the system will automatically predict the fruit and it will show the nutritional content present in the fruit.

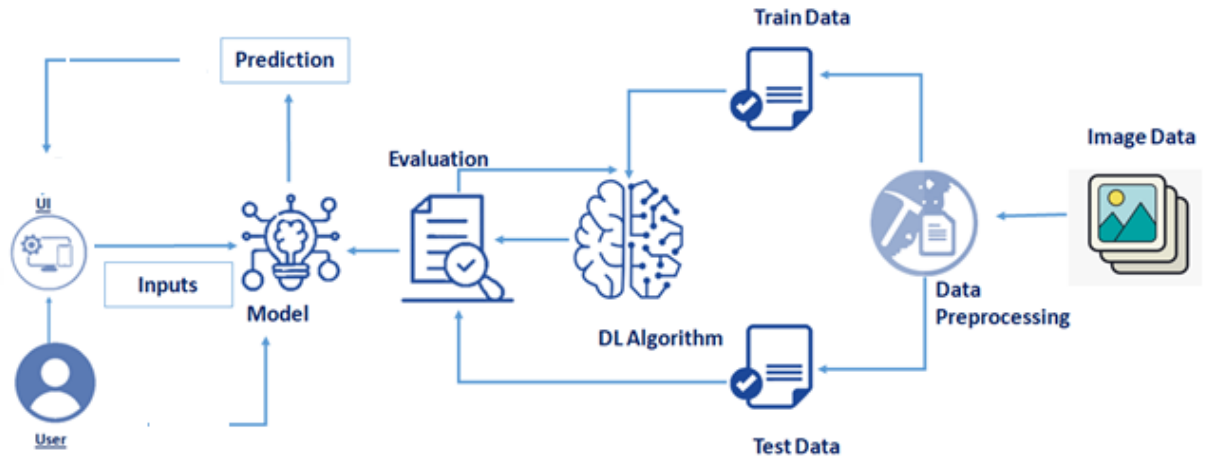
GOALS OF THE ARCHITECTURE

The main goal of the System is to provide a good quality product to the market for the users. This application or a website will really help the users to maintain their diet in control. There are many products available in market but this will really suits the user needs. And this Product will be provided to the customers through the subscription model. The user who has more usage can do the subscription according to their usage. The user who has less usage can use it for free with the advertisement model.

QUALITY OF SERVICE REQUIREMENTS

In this system, a Deep Learning algorithm called Convolutional neural network is used which detects the image of the fruit and classify the name of the fruit. Then the name of the fruit is used to search the nutritional content present in the fruit. The popular libraries like Tensor flow and Keras are used in the AI model building. The performance of the application is good because of the DL algorithm. And the application is highly scalable due to the subscription model and Advertisement model. It is a compatible app.

TECHNICAL ARCHITECTURE



Conclusion

This model is implemented using agile methodology. This is Minimum Viable Product architecture. In future we can add vegetables, cereals, eggs, meat, in the system. We can also calculate the total nutrition of the food, what we are in taking.