**AI-powered Nutrition Analyzer for Fitness Enthusiasts**

**Team ID :** PNT2022TMID27902

**Team Leader :** KISHORE J

**Team Members :** AKASH D

ANUSHA G

GOKUL V

**Department :** ELECTRONICS AND COMMUNICATION

ENGINEERING

**PROPOSED SOLUTION :**

The basic goal of the project is to employ image processing to create a model that can be used to recognise fruit based on several properties like colour, shape, and texture. Here, the user can take pictures of various fruits, which will later be analysed by a trained algorithm. The model analyses the image and enumerates the elements, such as sugar, vitamins, minerals, and protein, that are present in the fruit.

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**NOVELTY :**

The software contains a number of distinctive features. The biggest benefit is that the user can follow a fit and healthy diet without having to go see or consult a nutritionist or dietician. This software has the capability to scan fruits and vegetables and analyse their whole nutritional makeup.

For people with a limited range of food choices, it offers a tailored dietary requirement.

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**FEASIBILITY OF IDEA :**

The concept behind this software is to let users take pictures of various fruits and vegetables and then send those pictures to a trained model.

The algorithm examines the image and determines the nutritious content of several fruits, including (Sugar, Fibre, Protein, Calorie intake, etc.). The above idea is achieved by using the Convolution Neural Network (CNN) . It is employed to choose the image's raw pixels. Utilizing Color and Texture Features for Fruit Recognition.

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**BUSINESS MODEL :**

The greatest approach to get the word out about our application is through social media, and we can draw in regular people by working with influencers. using nearby gyms to group and target the exercise enthusiasts. The way we make money is by allowing nutritional product merchants (third parties) to advertise their items on our app. It is much better if the goods are marketed through advertisements.

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**SOCIAL IMPACT :**

Information regarding nutrition will be learned and provided. No one today adheres to the diet regimen. By giving them this knowledge, they are able to learn about the nutrients contained in each food item. It is used to plan a diet by capturing an image of a food item, and if we transmit it, we may learn about the nutrition of each food item, including the amount of carbohydrates, fat, proteins, vitamins, and minerals. Others' health and fitness will benefit from this.

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**SCALABILITY :**

In addition to developing strategies or establishing long-term goals, artificial intelligence (AI) can be used to anticipate investment outcomes swiftly and accurately.

In order to best meet the demands of the current scenario, scalable AI refers to how data models, infrastructures, and algorithms can change their complexity, speed, or size at scale. AI models can be constructed with billions of parameters as data storage and processing capacity continue to advance. The goal of scaling up nutrition is to enhance maternal and child nutrition as well as numerous health issues.