TITLE : AI-POWERED NUTRITION ANALYZER FOR FITNESS ENTHUSIASTS

PROBLEM STATEMENTS:

Consumption of fruits in day-to-day dietary plays an important role in the nutritional supplement intake of humans. Estimation of right nutrient intake through fruits consumption has become increasingly significant in order to maintain the proper health of well-being. In this paper ,the recommendations regarding the nutrition details of the fruits. In India, because of unhealthy and excessive intake fruit causes weight gain, Diabetes.

Nowadays new dietary assessment and nutrition and nutrition analysis tools are available. Nutritional analysis is the process of determining the nutritional content of food.

In this project we use AI and image classification technology to identify the fruit correctly and accurately and also calculated the amount of nutrition like sugar, fiber, protein, calories, etc. This helps the fitness enthusiast to track and monitor their intake nutrition and calorie intake.

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Fruits are a rich source of energy, minerals, and vitamins. There are many fruits types such as: apples': 'banana', 'orange', 'pineapple', 'watermelon'.The project's main aim is to build a model used for classifying the fruit depending on the different characteristics like color, shape, texture, etc. Here the user can capture images of different fruits and then the image will be sent to the trained model. The model analyses the image and detects the nutrition based on the fruits like (Sugar, Fibre, Protein, Calories, etc.). . A diet comprising mainly of fruits and vegetables can help prevent cancer, diabetes, and heart diseases. In this paper we execute an effective type of recognition, fruit recognition is carried out using the CNN algorithm. A set of fruit

images is trained in a CNN model for recognition of a standard nutrition table is referred to as measuring calories since using an image to measure calorie is an arduous task.

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High Calorie food intake can be harmful and result in obesity, which is a preventable medical condition that causes abnormal accumulation of fat in the body. It can result innumerous diseases such as obesity, diabetes, cholesterol, heart attacks, blood pressure and other diet-related ailments. In order to deal with such problems, people are inclined towards making a difference in their diet plans by paying more attention to what type of food they are consuming. Diet management is a key concern amongst individuals belonging to different age groups. However, one major challenge in diet management is to maintain a balance between what one eats and how one monitors his/her food consumption. The immense increase in ailments such as high cholesterol, blood pressure, strokes etc. demand for nutritional and diet management for which people resort to expensive nutrition therapies. This will help to find nutritional values

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Artificial Intelligence can be applied in multi-disciplinary fields, including patient service and care. It enables precise and personalized medical nutrition care by assessing food and nutrient intake, nutritional evaluation. The application of AI for the provision of food services to hospitalized patients is of immense scope. This review details the various ways through which AI can be applied for nutrition assessment. Even though commercial AI-based nutritional assessment systems are available, many do not evaluate the nutrient intake, and the data available through them were not validated. It is used to evaluate the food's calorie content and nutritional content.

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