AI-POWERED NUTRITION ANALYSER FOR FITNESS ENTHUSIASTS

INTRODUCTION

Humans should treat health and wealth equally. But, in today's fast moving lifestyle, people are not very conscious about their health. To maintain good health, a person needs to maintain a balanced diet, i.e. consume food containing proteins, vitamins and other vital nutrients that are needed by the human body. In this project, a system is developed to identify edible products and discern their nutritional information. The users of this system can capture images of their food and be informed regarding their nutritional composition. This way, fitness enthusiasts will be able to keep track of their calorie intake and people will be able to follow a healthy lifestyle of eating.

LITERATURE SURVEY

S.No	Authors	Title	Objective
01.	Jose Luis et. al. (2020)	Fruit Classification for Retail Stores Using Deep Learning	An enhanced CNN architecture that builds on the MobileNetV2 lightweight CNN architecture by taking into account additional input attributes in addition to the input images is proposed
02.	Susovan Jana et. al. (2020)	Automatic Classification of Fruits and Vegetables: A Texture-Based Approach	A comprehensive texture-based technique is proposed for automatically classifying fruits and vegetables in the face of changing viewing angles
03.	Chang Liu et. al (2019)	An Edge Computing Visual System for Vegetable Categorization	A deep-learning based edge computing system is proposed for classification of vegetable and fruits in Android Platforms
04.	Dayanand G Savakar et. al. (2021)	Fuzzy C-Means Clustering based Identification of Indian Common Non-Leafy Vegetables	A KNN classifier that uses the RGB and HSV features of the colors is proposed for leafy vegetables
05.	Guoxiang Zeng (2017)	Fruit and vegetables classification system using image saliency and convolutional neural network	A model that uses image saliency to chart out the item's regions and a CNN to extract its features are is proposed for classifying fruits and vegetables

06.	R. S. Chaulagain et.al (2017)	Cloud Based Web Scraping for Big Data Applications	A cloud-based web scraping architecture that can manage storage and processing resources elastically and on demand for big data applications is proposed
07.	K. Jaspin et. al. (2021)	Real-Time Surveillance for Identification of Fruits Ripening Stages and Vegetables Maturation Stages with Infection Detection	An efficient algorithm that uses the HSL color space to identify ripening of fruits and their stages of maturation is and live detection of image processing are suggested in this system
08.	Mehenag Khatun et. al. (2020)	Fruits Classification using Convolutional Neural Network	Multiple computer vision based approaches for classification of fruits are discussed

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