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A NEW APPROACH FOR CONTEXT BASED IMAGE PROCESSING USING MACHINE LEARNING APPROACHES IS DEPEND ON STATIC DATA OF IMAGE

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ABSTRACT:

The general feature of the new coronavirus (SARS-CoV-2) helps to better understand and control the coronavirus (COVID-19) in diabetics. In this project we are using COVID-19 dataset to train machine learning algorithms and then predict whether person has type diabetes and if type 2diabetes detected in person test record then he will be more vulnerable to COVID-19 disease, heart or kidney disease. To implement this project we build two machine learning model where first model detect person has diabetes or not and if diabetes detected then application will use his CT SCAN LUNG images to detect COVID or other diseases. The proposed learning technique has empowered clients to improve their list items dependent on the presentation of CBIR framework.

KEYWORDS: diabetes, COVID-19, SARS-CoV

INTRODUCTION:

Typical development. you will be late. Pollutions, particularly influenza and pneumonia, are consistently typical and more veritable in more prepared people with type 2 diabetes mellitus (T2DM). In light of everything, the confirmation remaining parts problematic concerning whether diabetes itself indeed extends shortcoming and impacts results from sicknesses, or the cardiovascular and renal comorbidities that are a significant part of the time related with diabetes are the guideline factors included.Diabetes and uncontrolled glycaemia were addressed as essential markers of sincerity and passings in patients contaminated with various infections, including the 2009 pandemic flu A (H1N1), SARS-CoV and MERS-CoV. In the power SARS-CoV-2, a few appraisals didn't locate a reasonable relationship among diabetes and incredible pollution. Regardless, different reports from China and Italy showed that more arranged patients with consistent pollutions, including diabetes, were at higher danger for silly COVID-19 and mortality.

PROPOSED METHODOLOGY:

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Dataset

The dataset contains the information about patients. This dataset is given by doctors. By using this dataset we predict the diabetes and covid diseases.

Upload Covid & Diabetes Dataset:

In this module User can upload the dataset. The dataset contains the information about covid patients. This dataset is given by doctor, we can used this dataset to train and predict diabetes and covid diseases.

Build context based image diabetes model:

After uploading the dataset the dataset is loaded, after loading successful we generate build context based image diabetes model to build machine learning model, after that it shows the accuracy results.

Upload Test data and predict disease:

Upload the Dataset file and then click on 'Open' button to load that dataset data and this dataset data contains patients records and we will get the prediction for all patients.

PROPOSED APPROACH:

This consent statement focuses on the use of visual aids, be it patients with heart, kidney or other diseases, diabetes and stroke. According to WHO, 10 out of 6 people have diabetes. The disease creates compounds that mean vascular disease, mild blindness, myocardial infarction (MI), increased blood pressure, etc. Illness is a disease that occurs when blood sugar levels rise and eventually lead to other health problems such as heart disease, kidney disease and retinopathy. Patients with complications such as new diseases, retinopathy, heart disease and other endocrine diseases, mainly due to overused diet, poor eating habits and supplementation with antioxidants and antimicrobials. The patients treated were not included in the study.

DEEP LEARNING ALGORITHMS:

Convolution Neural Networks (CNN) and Support vector machine (SVM)

CNN: Convolutional neural network (ConvNet / CNN) is a detailed learning algorithm that takes image input, providing value (readable tools and options) to aspects / sections Image elements and differentiate them from each other.

SVM: SVM is a supervised machine learning algorithm that can be used to share or recover problems, transform data using a process called kernel wizards, and find appropriate parameters between The output can be based on this change.

Step 1: There are number of images present in image database and first step is to extract the features from images present in database.

Step 2: The performance of Context Based Image Processing Using Machine Learning

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Approaches is depend on shape, texture and color or other features of image. For this feature extraction CNN algorithm is used.

Step 3: The shape, texture and color information low level features of images are extracted. And in feature database these features are stored as feature vector.

Step 4: A query image is enters into the system. After extraction of query image features a feature vector is generated which is further compared with all vector stored in database.

Step 5: In high dimensional feature space firstly the image data is represented in terms of features and then images similarity is stored in the database which is further compared with query image. For the comparison of image features and query features SVM algorithm is used.

CONCLUSION:

Coronavirus has spread rapidly since being identified in Wuhan, indicating its widespread spread. Early detention, early collection and early management can help actively control disease and side effects. Diabetes and other disorders are important indicators. Future studies are expected to provide high genetic diversity in patients with COVID-19, as well as the underlying pathophysiological mechanisms of the relationship between COVID-19 and diabetes, and our clinical management.

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