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INTERNATIONAL JOURNAL OF PROGRESSIVE RESEARCH IN ENGINEERING MANAGEMENT AND SCIENCE (IJPREMS)
Vol. 02, Issue 05, May 2022, pp : 99-101

e-ISSN : 2583-1062
Impact Factor : 2.205

COVID FUNGAL DETECTION USING DEEP LEARNING

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ABSTRACT

COVID19, also known as 2019nCoV, is no longer a pandemic, but a pandemic that has killed more than 651,247 people worldwide. COVID19 currently has no specific treatment or cure, so living with this condition and its symptoms is unavoidable. This fact has added to the burden on the world's already overcrowded health care systems, especially in the developing world. Despite the fact that there is no effective or certified clinical trial of an antimicrobial agent, Although there is no approved vaccine to end the COVID19 epidemic, there are options that can help reduce the burden. data development not only limited health care systems but also economics.Manical learning, data mining, indepth learning, and other practical techniques are examples. Alternatives like these may be Diagnosis and prediction of the 2019nCoV epidemic patients will be simplified. depletion, decision tree, vector support machine, Naive Bayes, and neutral neutral network. Prior to the creation of the models, an analysis of the coefficient of correlation between the various dependent and independent factors was performed to determine the strength of the correlation between each dependent element and the independent data. The training data collection was used to train models for 80% of the time, and the remaining 20% was used for model testing.

1. INTRODUCTION

Machine learning (ML) is one of the most advanced AI concepts, allowing for the development of automated, complex, and algorithmic objectives for processing biological or mathematical data of various sizes. Machine learning algorithms can learn and refine their structure based on targeted data collection, and adaptability by improving costeffectiveness or goal. In addition, because many rural and remote areas are unable to perform COVID19 tests on a large, costly basis, having the same diagnostic / testing procedures that use artificial intelligence and machine learning and use historical data will be very beneficial. It can also help in selecting people to be tested first.

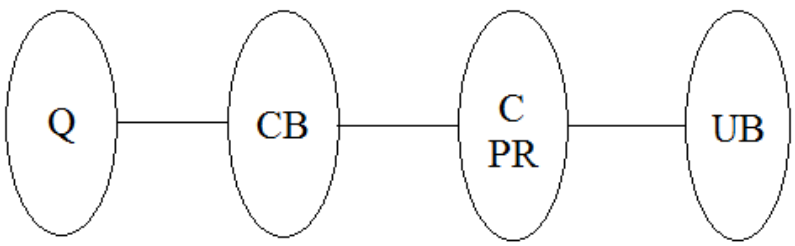
2. METHODOLOGY

Algorithm

CNN:

- Convolutional Neural Network (ConvNet / CNN) is an Indepth Learning algorithm that can capture the embedded image, assign value (readable weight and bias) to the various elements / elements in the image and be able to distinguish one from the other. The initial processing required for ConvNet is very low compared to other partitioning algorithms. ConvNet can read these filters/symbols while previous filters are handcrafted with sufficient training.Layer types:
- Input Layout: This layer contains immature image input for width, height and depth Convolution Layer: This layer combines the output volume by making a computer dot product between all filters and image patch.
- Activation Layer: This layer will use the function to activate the intelligence of the object in the output of the convolution layer. Some common unlock functions are active.
- Combination layer: This layer is periodically applied to covnets and its main function is to reduce the volume size which makes the calculation faster reduce memory and prevent overequilibrium. The two most common types of bonding layers are Fully Combined Layout: This layer is a standard neural network layer that takes the prelayer input and calculates class points and produces a 1D list of sizes equal to the number of classes.

3. MODELING AND ANALYSIS



Where:
Q = User Input
CB = Pre-Processing
C = Feature Selection
PR = Pre-Processing4 Query Results

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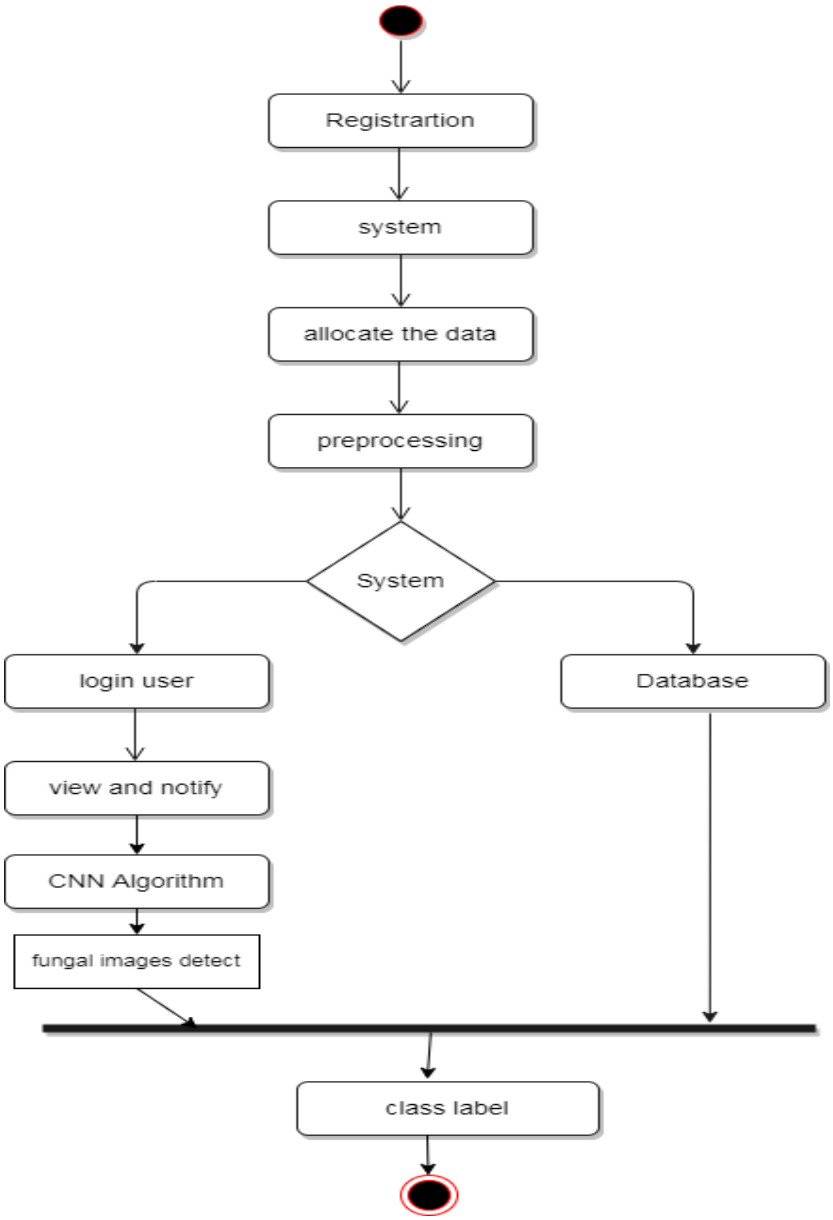
4 Get the query results very quickly. .
Spatial Complexity:
Spatial complexity depends on the representation and visualization of the detected pattern. More space for data storage increases space complexity. Time complexity: Determine the number of available patterns = n in data set
. If
(n>1), it may take a long time to get the information. So the time complexity of this algorithm is O(n^n).

State Map:



4. TEST RESULT

Application specific code/internal structure and configuration information is usually not required. The tester knows what the program should do, but doesn't know how to do it. For example, the tester knows that a certain input returns a certain static output, but the software doesn't know how to produce the original output. Test case. Test cases are written according to specifications and requirements, i.e. what you are applying for. Test conditions can usually be found in external software descriptions, including specifications, requirements, and design parameters. While the tests you use will work naturally, you can also use non-functional tests. The test designer chooses both positive and negative inputs and determines the correct input, without knowing the internal structure of the test object.

Activity Graph:

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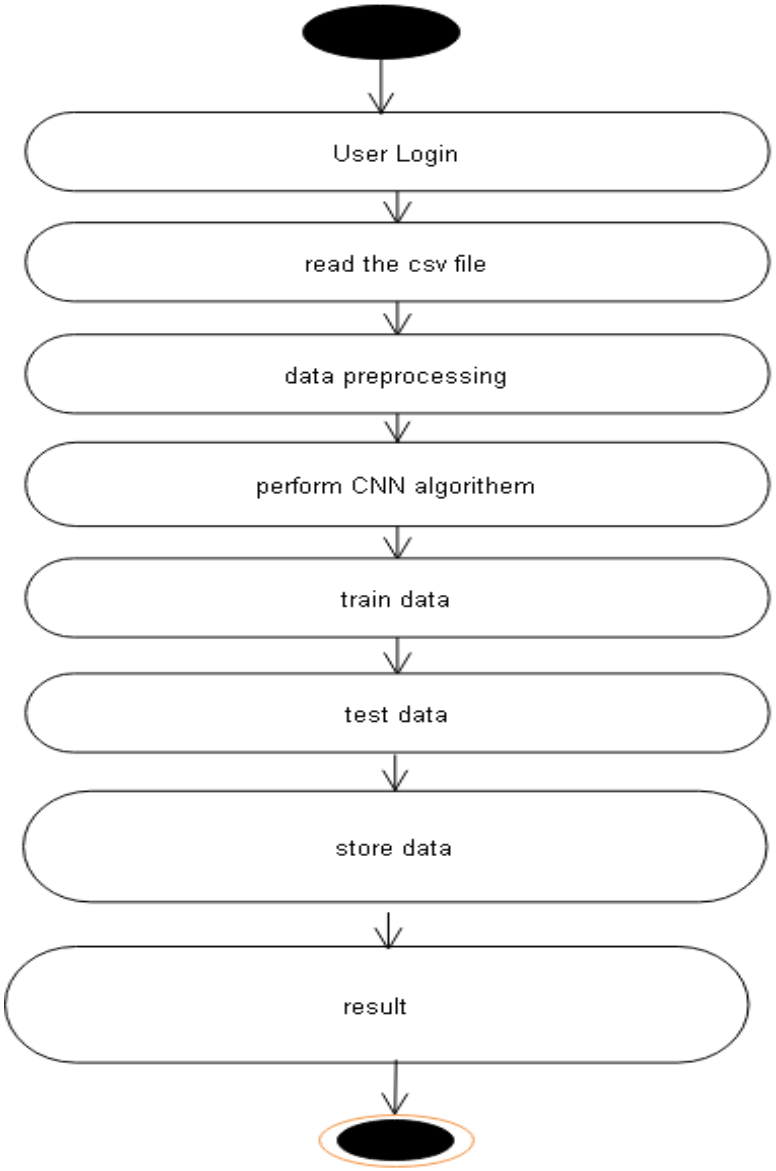

5. CONCLUSION

- Detection of COVID-19 is often associated with symptoms of covid19 that can be detected through genetic testing and photography. Imaging tests can help detect COVID-19 more quickly and control the spread of the disease. Significant progress has been made in CNN's deep classification of medical images thanks to the existence of large annotation websites. CNN allows you to learn the most relevant and consistent image features in the data. However, given the reality of COVID19 based on mushroom images, the accuracy of these annotations still remains an important issue. Adam's editing method was used to develop CNN model parameters using crossentropy as the loss function. The learning rate starts at 0.001 and decreases after 4x unless the loss rate is improved by the retuning function. The model was trained 60 times.
- Use the stratification option to split the site into a training set and a test set, and keep portions of the original target site for extended scores and duplicate results.

6. REFERENCES

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