

CoronaVirus : ANALYSIS

The Idea

- The idea is to stop the transmission by prioritizing tests and hence detecting the cases quickly
- Data can be collected on the symptoms of COVID-19
- A machine learning model is then trained on the data to find out the probability of a person having the infection
- The model is then used to find out whom to test for the infection first under a limited testing capacity
- The same model can be used to find potential candidates for conducting random tests



- Here are symptoms is features
- Label is the output that the person is suffering from coronavirus or not

It is mainly decision model which define which person is having the more priority than the other person

Machine learning model parameters

- A team of doctors can sit down to find out the best model parameters.
- A sample set of such parameters is as follows:
 - ✓ Features
 - Average Fever - Continuous
 - Body Pain - 0/1 - Binary
 - Age - Discrete
 - Runny Nose
 - Difficulty breathing - Categorical : -1/0/1
 - ✓ Labels:
 - Probability of Covid-19 Infection



- Runny nose - categorical value
- Difficulty breathing -1 means no pain ,0 means slightly pain and 1 mean pain

Few things before we start Coding

- Lets go to the VS Code and start coding now
- We will be using a JuPyter notebook for the initial development...
- Data to be randomly generated for this prototype
- Further we will create a UI with a form, capable of storing inferring the input data from the trained model



- We use jupyter notebook because we don't have to run our code every time for that reason we don't use jupyter notebook
- If file load the model than I can use it as many times as my wish
- Also the cell in the jupyter notebook can be updated and re-run
- If your model is heavy then we don't have to load it every time we use the model because it is stored in the RAM
- The label is categorical ie zero(no infection) and one(having infection)
- when we are trying to find inferences then its range is in between 0 to 1