MAJOR PROJECT

Project Guides :

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MAJOR PROJECT

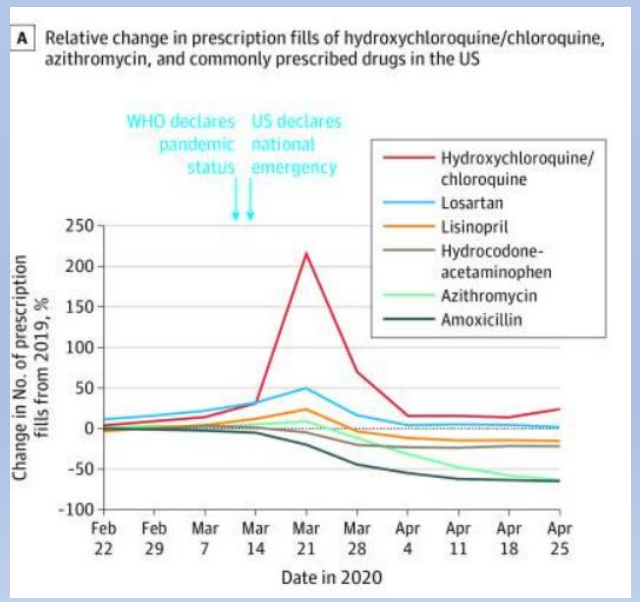
LIVER AND LUNG DISEASE PRODNOSIS SYSTEM
(Due to Covid)

Different vaccines such as covi-shield and co-win were applied to applied to covid patients and others for treating covid or preventing it. But these vaccines comes with side effects on lung, liver and hearts. Our major projects deals with the prediction of risk a person has after treatment with that certain vaccine. Datasets and Machine Learning Models are used for this purpose.

DATA SET

To test our Model we will be creating our own dataset(dummy data) based on various medicines which were given to covid affected patients and others and taking notes the number of doses applied and keeping in mind their side effects. And to check our model's efficiency we will be testing it on datasets gathered from various organizations.

# BMI	# DiabetesPedigree...
Body mass index (weight in kg/(height in m)^2)	Diabetes pedigree function
0 – 67.1	0.08 – 2.42
33.6	0.627
26.6	0.351
23.3	0.672
28.1	0.167
43.1	2.288



Medicine

Remdesivir (VEKLURY)

Sotrovimab (XEVUDY)

Casirivimab + Imdevimab (RONAPREVE)

Tocilizumab (ACTEMRA)

Regdanvimab (REGKIRONA)

Tixagevimab and cilgavimab (Evusheld)

Ivermectin (not approved but still used)

Hydroxychloroquine (not approved but still used)

Losartan

Dexamethasone

# Glucose	# BloodPressure
Plasma glucose concentration a 2 hours in an oral glucose tolerance test	Diastolic blood pressure (mm Hg)
0 – 199	0 – 122
148	72
85	66
183	64
89	66
137	40

MODELS USED

Random Forest

Building the model using RandomForest

```
from sklearn.ensemble import RandomForestClassifier

rfc = RandomForestClassifier(n_estimators=200)
rfc.fit(X_train, y_train)
```

Decision Tree

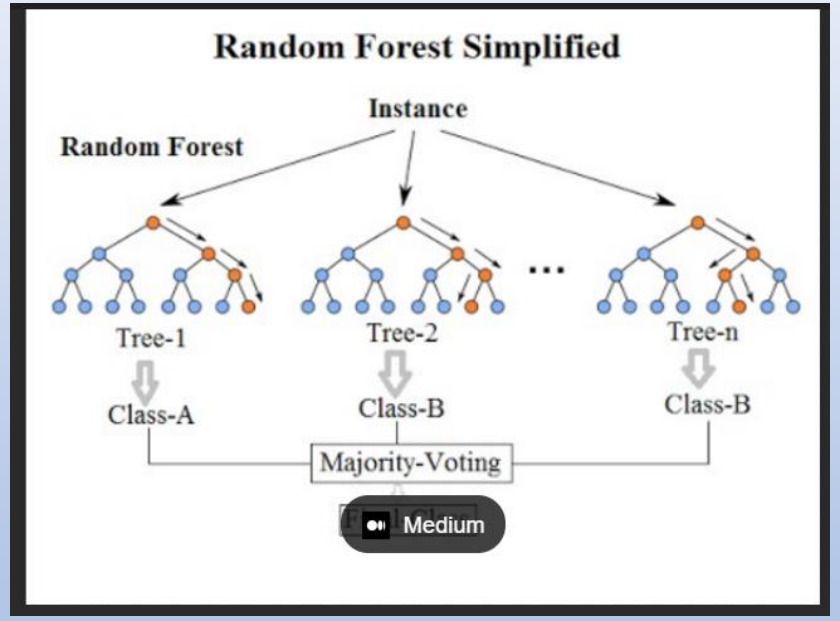
Building the model using DecisionTree

```
from sklearn.tree import DecisionTreeClassifier

dtree = DecisionTreeClassifier()
dtree.fit(X_train, y_train)
```

XgBoost classifier

Building model using XGBoost

```
from xgboost import XGBClassifier

xgb_model = XGBClassifier(gamma=0)
xgb_model.fit(X_train, y_train)
```



Random Forest

The random forest algorithm is made up of a collection of decision trees, and each tree in the ensemble is comprised of a data sample drawn from a training set with replacement, called the bootstrap sample.

Thank You