Impact of Covid-19 Pandemic on the Global Economy Machine Learning

Data Science Immersive

MAIN TOPICS

POINTS TO TALK ABOUT

The Objective

Data

Target Column

Data pre-processing

Feature importance

Models

Results

THE OBJECTIVE

Predicting the impact of Covid-19 on the global economy especially in Gross Domestic Product Per Capita.

DATA

CODE

COUNTRY

DATE

HDI

TC

TD

STI

POP

GDPCAP

GDP is one of the most important economic indicators; it shows the short-term development of an economy.

DATA PRE-PROCESSING

FILL MISSIG VALUES
Fill missing values in HDI column by median.

DROP SOME COLUMNS
Before dummy, I dropped CODE column it was duplicated column.
After dummy, I dropped all categorical columns.

GET DUMMIES
Get dummy on one column that I had it was COUNTRY column.

1,144.411

CHINA MOST COUNTRY IN THE WILLING TO FOLLOW THE RULES OF A PANDEMIC
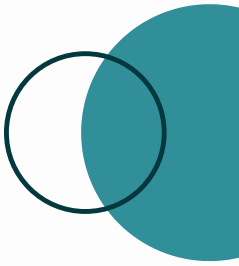
1,096.837

SINGAPORE COMES SECOND AFTER CHINA
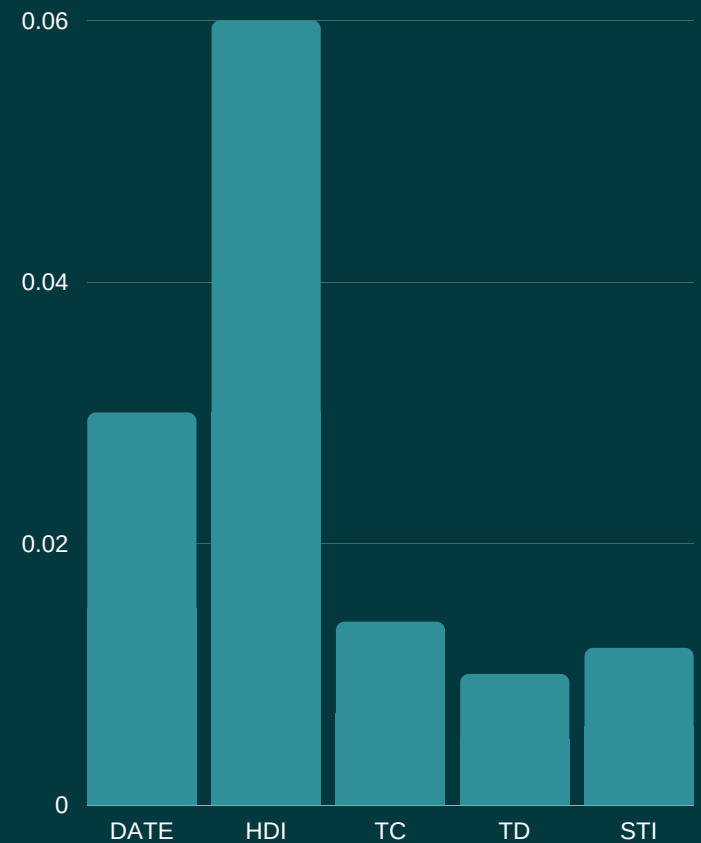
0.953

HDI IN AFGHANISTAN

People in Afghanistan have more chances of surviving a COVID-19 pandemic

FEATURE IMPORTANCE

Feature importance refers to techniques that assign a score to input features based on how useful they are at predicting a target variable.

Models

LINEAR RGRESSION

Model is to find a relationship between features and a continuous target variable

DECISION TREE REGRESSION

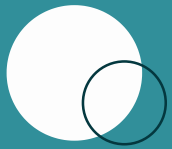The model breaks down a dataset into smaller and smaller subsets

XGBOOST REGRESSION

The model a powerful approach for building supervised regression models

RANDOM FOREST REGRESSOR

It is a supervised learning algorithm that uses ensemble learning method for regression
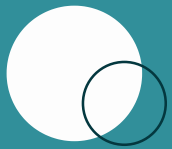
Results

LINEAR RGRESSION

Mean squared error is: 0.00

DECISION TREE REGRESSION

Mean squared error is: 0.00

XGBOOST REGRESSION

Mean squared error is: 0.47

RANDOMFOREST REGRESSOR

Mean squared error is: 0.04

THANK YOU FOR YOUR ATTENTION

Questions?