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Covid Dashboard with future trend projections

January 2022

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# Overview

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. The first known infections from SARS-CoV-2 were discovered in Wuhan, China. Since then, the virus has spread over multiple companies and evolved into a pandemic. The economic and social disruption caused by the pandemic is devastating. Millions of enterprises face an existential threat. Nearly half of the world’s 3.3 billion global workforce are at risk of losing their livelihoods.

Travel and tours industry is one of the worst hit industries that had a major revenue fall after the outbreak of Covid 19 pandemic. Having a system that can monitor the current situation of Covid around the world provides better control and improve confidence at a time of uncertainty. We are interested in developing the following:

* + A machine learning model that can make projections on the anticipated number of covid cases for the upcoming 3-month period based on past data and current trends.
  + Dashboard with different visualizations for analysing the covid related data and projections on number of active cases, hospitalizations, recovery rate and deaths.

# Stakeholders

* Travel and tourism companies
* Airlines
* Consumers who would like to travel in the midst of pandemic in the near future.

# Datasets

<http://www.bccdc.ca/health-info/diseases-conditions/covid-19/data#COVID-19Dashboard>

<https://ourworldindata.org/explorers/coronavirus-data-explorer>

<https://github.com/owid/covid-19-data/tree/master/public/data>

<https://github.com/CSSEGISandData/COVID-19>

# Approach

* Create Tableau dashboard that depicts the current trends
* Create ML model to make anticipated projections based on current trends
* Make visualizations to depict the predicted projections.

# Deliverables

* Jupyter notebooks of data cleaning, EDA, preprocessing and modelling, predictions
* Final written report
* Presentation slide deck
* Tableau public dashboard