Time Series Forecasting of COVID-19

Project by Bella Scribner

Overview

- Proposed Business + Project Goals
- The Data
- The Final Model
  - Description
  - Evaluation
- Recommendations

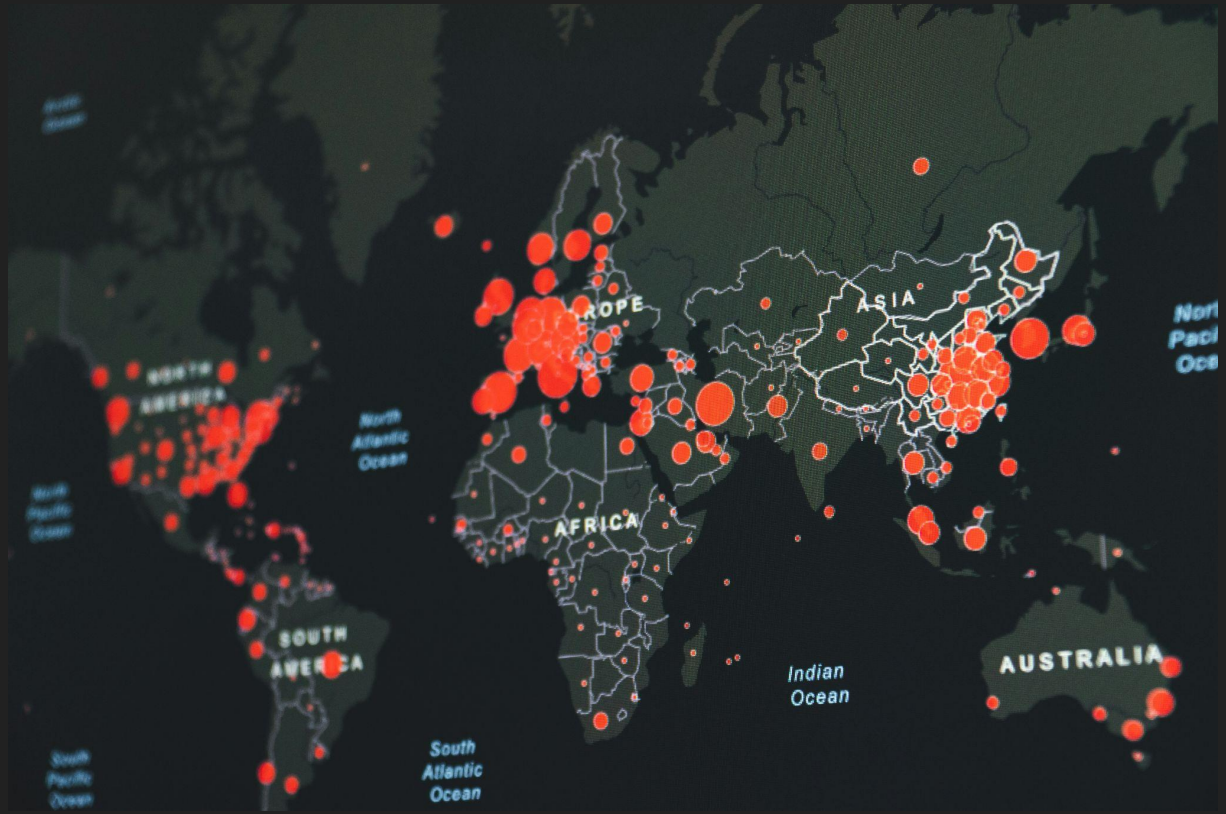
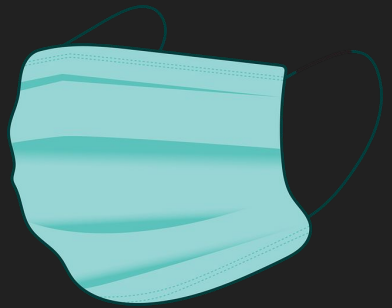


Photo by Martin Sanchez on Unsplash

Proposed Business + Project Goals



- Data Collection + Advisory to Public Health Officials
- Forecast expected harm, then inform + recommend public health officials
  - Enact policies to avoid unnecessary deaths

Mask Image by digital designer from Pixabay
Stay Home Image by Grégory ROOSE from Pixabay
Social DistanceImage by Gerd Altmann from Pixabay

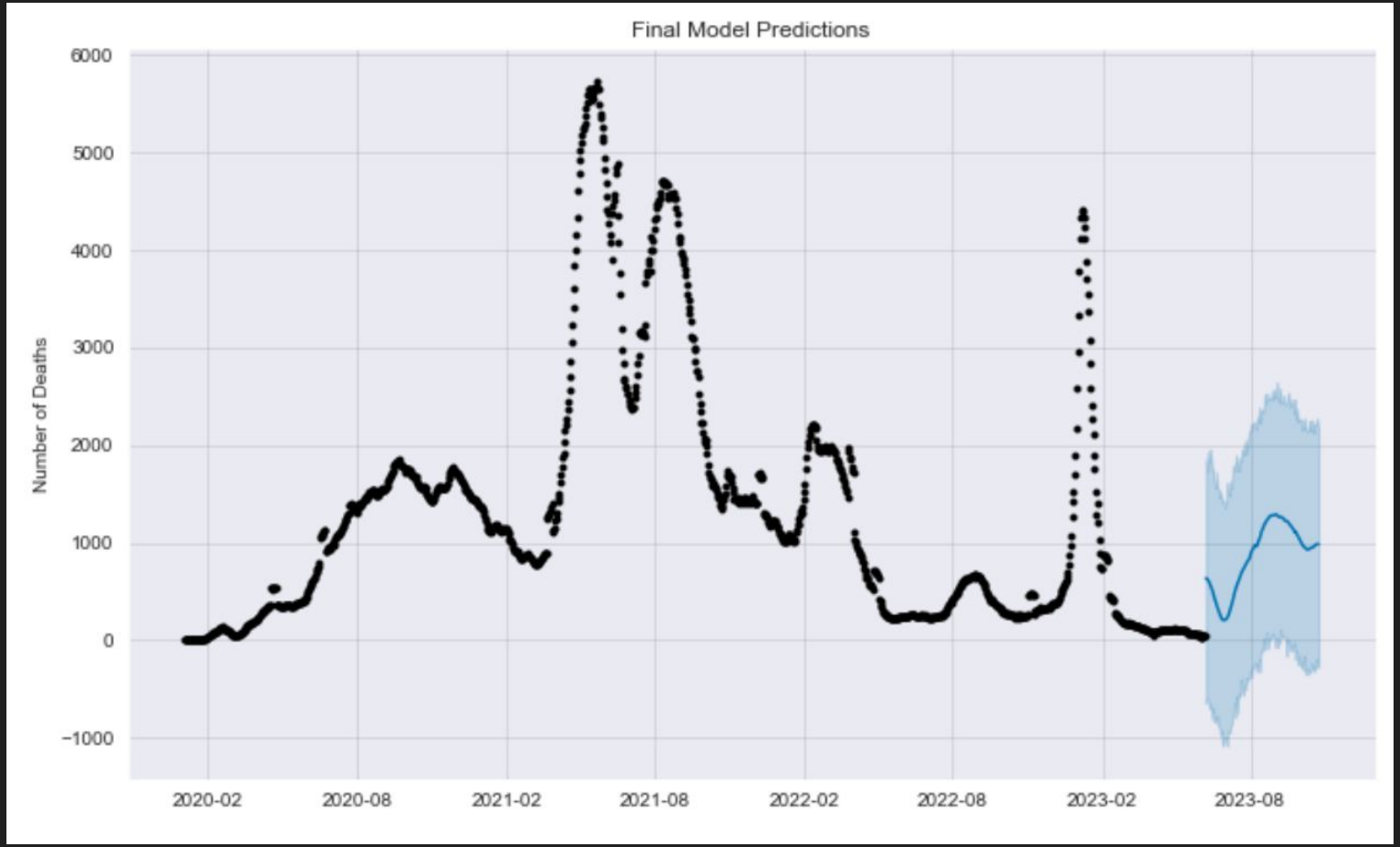
The Data

- Our World in Data
- WHO
- John Hopkins University

The Model - Multivariate Time Series, Prophet

Date	New Deaths	Stringency Index	New Cases	People Vaccinated	New Vaccinations
2020-12-20	1452	55	100735	7468	194897
2020-12-21	1463	55	99428	32391	203660
2020-12-22	1447	56	97227	77060	213163
2020-12-23	1437	56	94579	178942	223827
2020-12-24	1429	56	92404	263483	242625
2020-12-25	1438	56	90790	302473	236616
2020-12-26	1421	56	88234	336104	233688
2020-12-27	1396	56	85441	442739	247035
2020-12-28	1377	56	82840	580902	262315
2020-12-29	1377	56	81576	739920	280672
2020-12-30	1365	57	80507	896610	293362
2020-12-31	1355	57	79708	1058055	304121

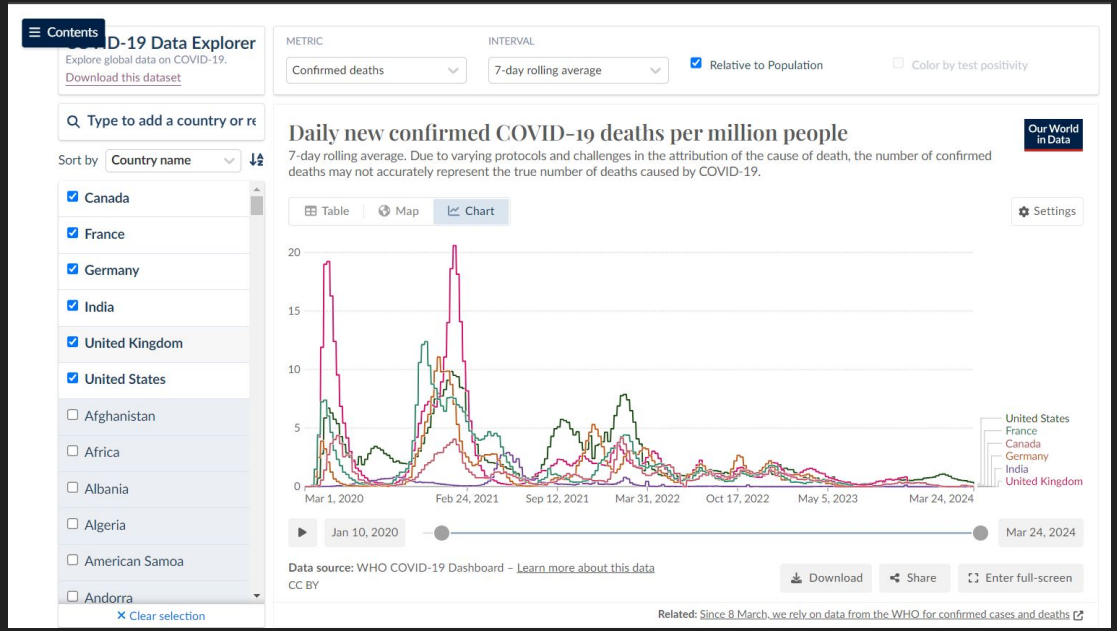
- Time Series
- Meta’s Prophet library
- Multivariate



The Model - Evaluation

Recommendations

1. Make data more accurate
2. Utilize the mode
3. Investigate incorporating more public health descriptors



Next Steps

- Forecast by continent
- Compare + Contrast by continent
- Interactive application – forecast models by country
- Regressive model predict by country

Questions, Comments, Concerns?

Thank you,
Bella Scribner
GitHub |
https://github.com/Bella3s/Covid-19-Time-Series-Modeling