

CSE523: Machine Learning

Project Report Week- 6

➤ Team name.: **Tech_mak**

➤ Name & Roll no.:

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➤ Tasks Performed in the week

- Add columns
 - **Active cases** from daily confirm cases, daily deaths and daily recoveries
- Explore autoregressive and time series algorithms
 - Auto regressive (AR)
 - Moving Average (MA)
 - Auto Regressive Integrative Moving Average (ARIMA)
 - Auto Regressive Moving Average (ARMA)
 - Exponential Smoothing (ES)
- Perform Moving Average (MA) in the datasets on the following columns
 - Daily confirm
 - Daily recovered
 - Daily Deaths
- Data filters on datasets

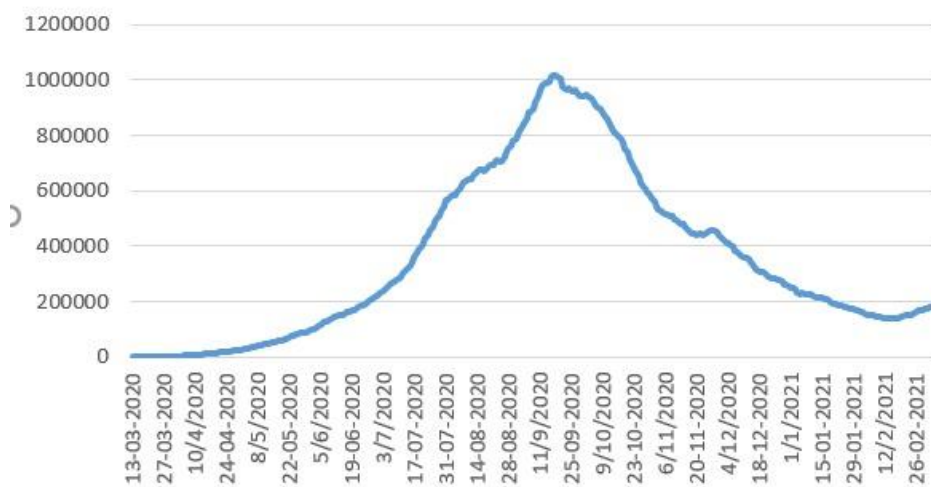
➤ Outcomes of the tasks performed

- One new column in the dataset → Daily Active cases

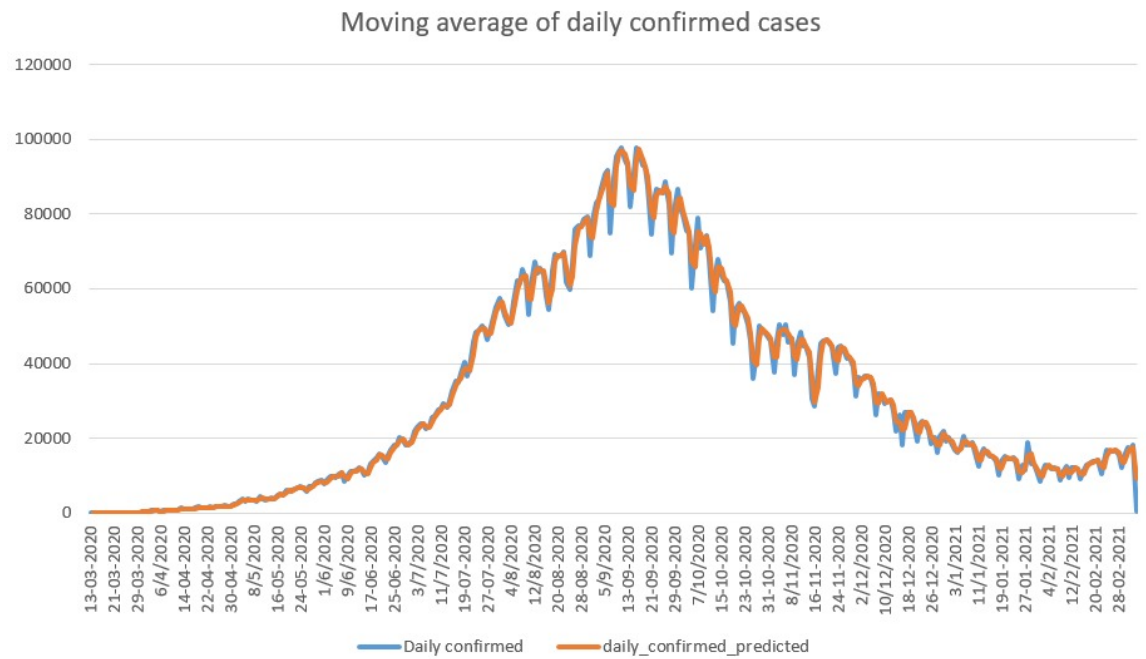
○ India

Date	State	Confirmed	Recovered	Deceased	Other	Tested	Daily confirmed	Daily_recovered	Daily_deaths	Active case
13-03-2020	India	91	3	1	0	6500	10	3	1	87
14-03-2020	India	102	3	1	3	6500	11	0	0	98
15-03-2020	India	112	3	1	3	6500	10	0	0	108
16-03-2020	India	126	3	1	3	6500	14	0	0	122
17-03-2020	India	146	3	1	3	6500	20	0	0	142
18-03-2020	India	171	3	1	3	13125	25	0	0	167
19-03-2020	India	198	3	1	3	14175	27	0	0	194
20-03-2020	India	256	4	1	3	15404	58	1	0	251
21-03-2020	India	334	4	1	3	16911	78	0	0	329
22-03-2020	India	403	4	1	3	18127	69	0	0	398
23-03-2020	India	497	4	1	3	20707	94	0	0	492
24-03-2020	India	571	6	1	3	22694	74	2	0	564
25-03-2020	India	657	6	1	3	25144	86	0	0	650
26-03-2020	India	730	6	2	3	27688	73	0	1	722
27-03-2020	India	883	8	3	3	27688	153	2	1	872
28-03-2020	India	1019	8	3	3	27688	136	0	0	1008
29-03-2020	India	1139	99	28	3	27688	120	91	25	1012
30-03-2020	India	1326	141	41	3	38442	187	42	13	1144
31-03-2020	India	1635	160	47	3	42788	309	19	6	1428

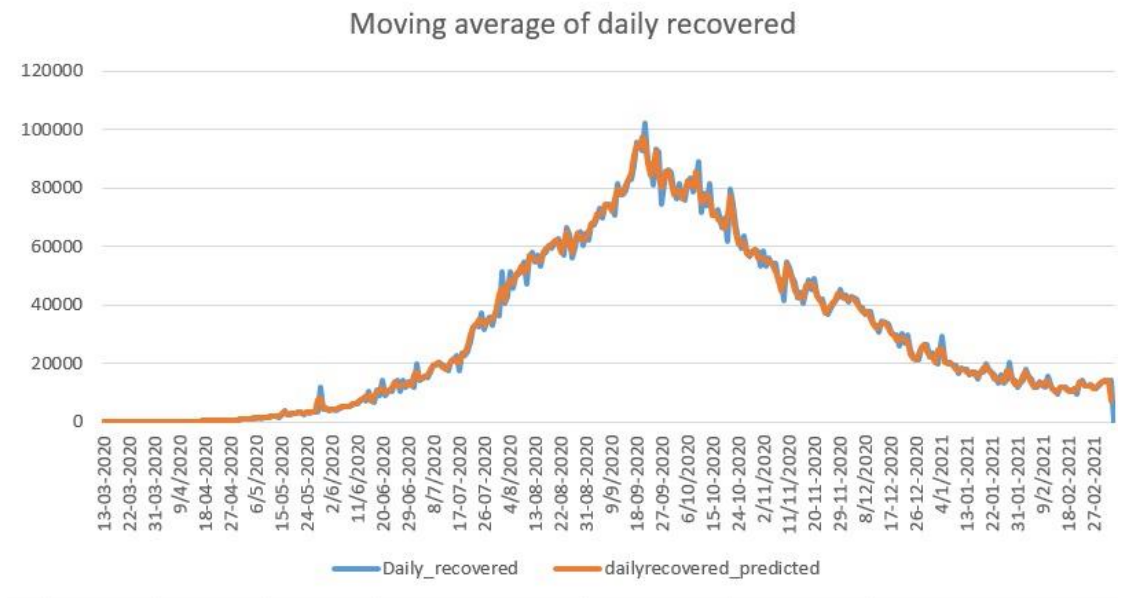
Active case



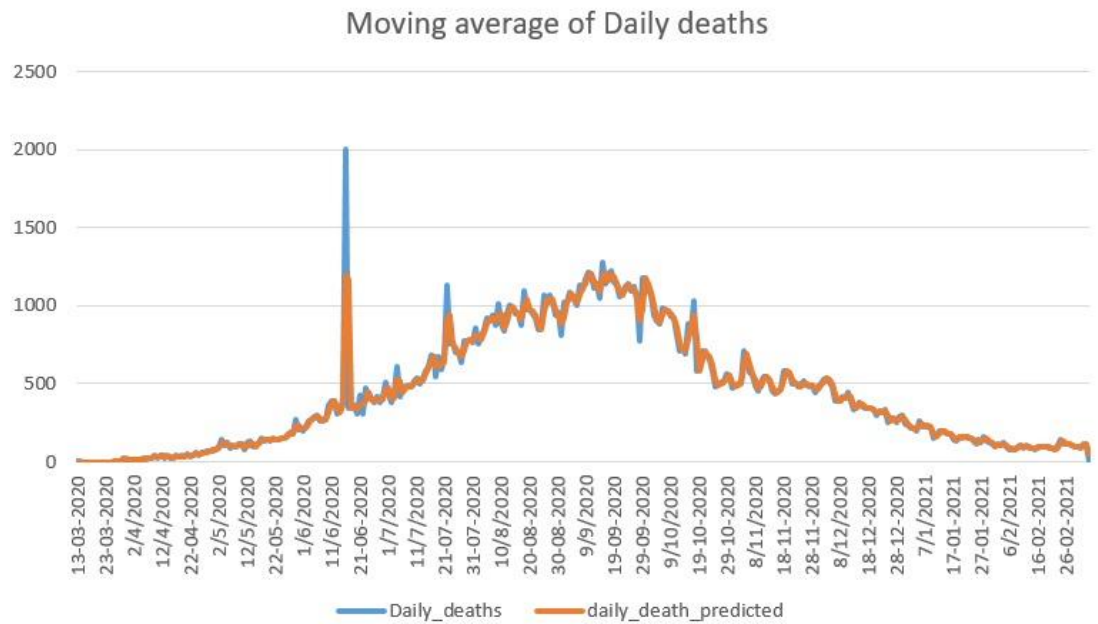
- Moving Average of Daily confirm cases



- Moving Average of Daily recovered cases



- Moving Average of Daily Deaths



- Got good efficiency of Moving Average (MA) for all the columns(features)

➤ Tasks to be performed in the upcoming week

- Explore following algorithms in-depth
 - Auto Regression (AR)
 - ARIMA
 - ARMA
- Will Try to implement algorithms to the datasets