

Model Metrics

I. Model

Gradient Boosting Regressor

II. Features

1. *Number of new cases 7 days behind*: shifted new_cases_per_hundred column by 7 days (t-7)
2. *Rolling average of new cases 14 to 7 days behind*: average of new_cases_per_hundred column from (t-14) to (t-7)
3. *Rolling average of new cases 10 to 7 days behind*: average of new_cases_per_hundred column from (t-10) to (t-7)
4. *Total number of people vaccinated 7 days behind*: shifted people_vaccinated_per_hundred column by 7 days (t-7)

III. Hyperparameters

1. Max_Depth = 3
2. Min_samples_leaf = 100
3. N_estimators = 500

IV. Performance Metrics

1. Minimize MAE [mean absolute error]

Best ML model: MAE = 0.003137

Baseline model of new cases at time t equal to new cases at time t-7: MAE = 0.003288

Baseline model of ML model without vaccination data: MAE = 0.004211