Collaborative activities during the task

It was a very interesting element of this assignment that we could share code amongst our peers. I started this assignment a little later than some my peers, they had discussed a few approaches on time series analysis approaches such as changepoint detection (Charles Reinerston) and Ruptures (Tharun Reddy) for the same purpose, data preparation like extracting and transforming data to a feasible format. I used these ideas to build my own code. Almost at the end of this assignment though, I came across a blog post on the different ways we can perform data mining or pattern analysis with time series data. This is when I realized that collaborative effort can hinder my ability to have a broader understanding of the different solution steps or approaches I can take towards a solution.

On the other hand though, I felt this collaborative effort did have its upsides. When having one-on-one conversations with Juhi Choubey and Aishwarya Singh, I realized that for this assignment we do not necessarily have to train a model for predictive purposes, rather a visual pattern extraction of how number of cases changed as a response to some kind of stimulus, i.e mask mandates in this case. Furthermore, upon discussing more about the approaches with Tharun Reddy, I realized that whatever model we use for fitting a curve over the entire span of time, we will have to tune the parameters of the model to match the contextual scenarios of each county individually. Therefore, I felt collaborative effort definitely helped us to bounce ideas off of each other, building from each other's ideas and reaching feasible approaches faster.

Also while discussing considerations for modelling, we brainstormed how to make use of the probability of compliance data. Initially we weren't sure how this data could be used for modelling purposes, however by discussing different approaches with my peers I was able to change my thinking. We realized that maybe we have to consider this as starting point for compliance and use assumptions to manually change the compliance percentage over a period of time. There might be regional effects in play, for eg when more news about high hospitalization, death is shown on news there might be higher compliance so we increase/decrease compliance percentage accordingly. So maybe we "model" a series which follows the number of infections? Like if the rate of change of infection is high, the compliance also increases but with a lagged effect.

Overall, I felt that it is very interesting that by collaborating on ideas, we can both hinder and find improvements in our ideas. It was imminent that working with a bigger group will limit me as there is lesser participation or chances to be creative. But when collaborating with a few people, I feel discussions are better and creativity is not hindered.