

Forecasting the Quantity of Individuals Affected using Data Science

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Abstract: *Anticipating new components of SARS-CoV-2 infections during the ongoing COVID-19 pandemic is crucial for public health, efficient healthcare planning, and assessing the impact of intervention strategies. We offer an alternative model that accurately forecasts the next number of episode instances by relying on recent occurrences and making few assumptions. Our approach to handling future COVID-19 situations encompasses :*

1) Presenting the recorded instances of rate cases related to a Poisson distribution for daily frequency issues, the Poisson distribution for daily occurrence issues, and the Gamma distribution for the duration of the series; and 2) Presenting the recorded instances of rate cases related to a Poisson distribution for daily frequency issues, and the Poisson distribution for daily occurrence issues.

2) Assessing the present generation number under the assumption that it remains constant for a brief period of time; and

3) Predicting future instances based on their previous allocations, while considering that the current transmission rate will either stay the same or change to a specific extent.

We employ our methodology to predict the quantity of fresh COVID-19 cases in an individual state in the United States, as well as for a subset of specific areas within the state, in order to showcase the efficacy of this approach across different prediction magnitudes. Our technique consistently generates accurate results when the successful multiplication number is distributed in the future in a similar manner as before. Substantial deviations from the anticipated outcomes may suggest that a change in strategy or a confluence of events happened, resulting in a significant alteration in disease transmission over time. We proposed a demonstration technique that we believe can be readily embraced by others and is instantly applicable to neighbourhood or state planning.

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