Mapping Covid-19 using Social Media

August 14, 2020

General Assembly - DSI
WC-S5

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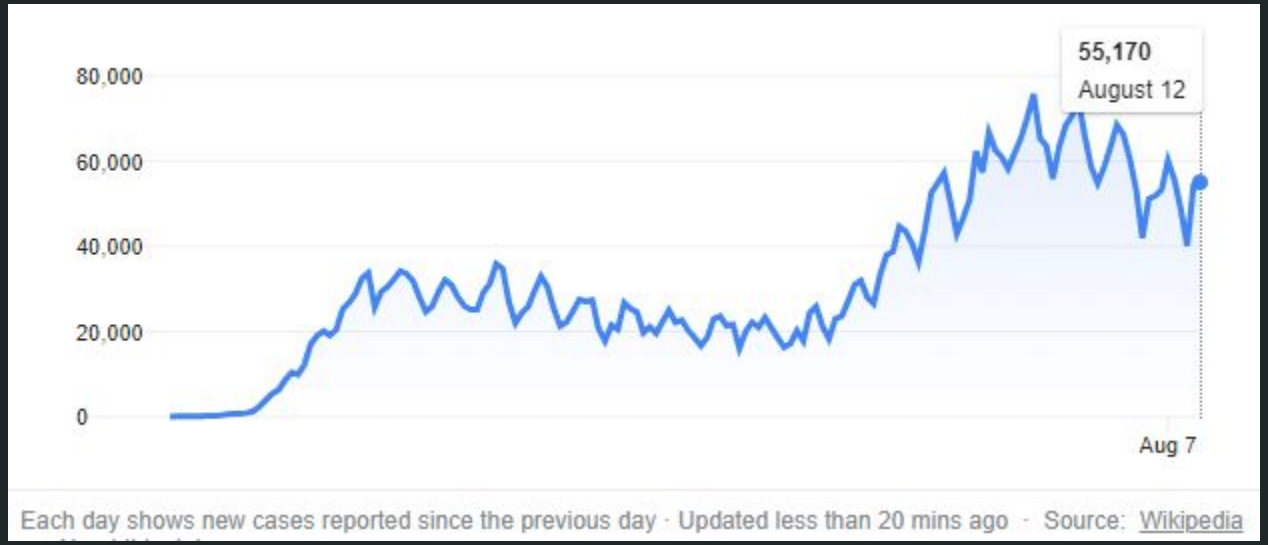
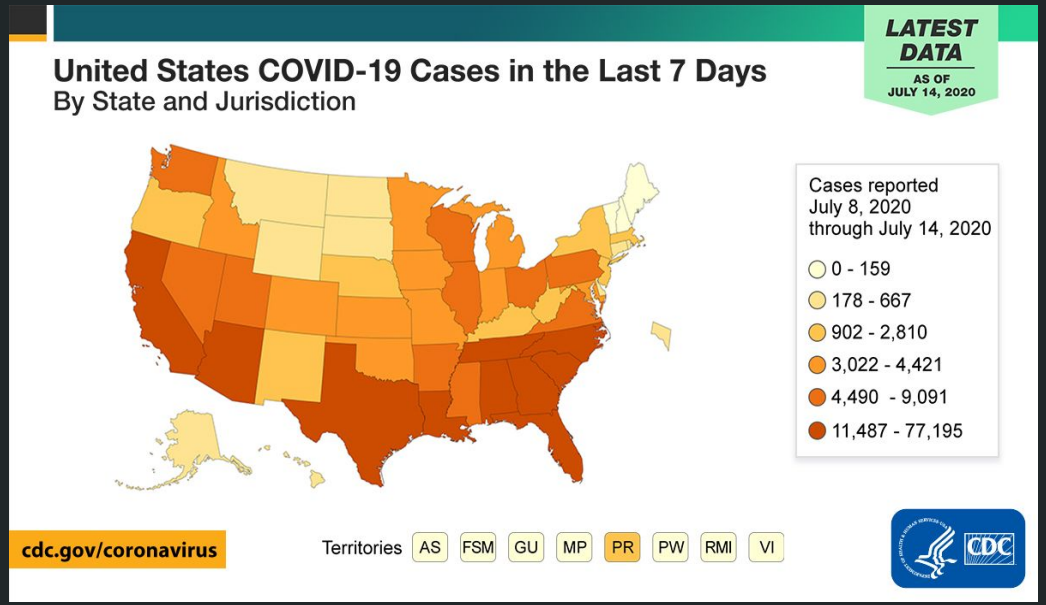
Introduction - Covid-19 Cases



Covid-19 is the worst pandemic in recent memory, with over 2 million cases and 750,000 deaths worldwide

In the United States, over 50,000 new cases are being reported per day

Introduction - Covid-19 Cases



Tracking the spread of covid-19 is critical for improving responsiveness and containment of the disease

Official statistics take time to properly collect, vet, and release, which can slow response times for people at risk

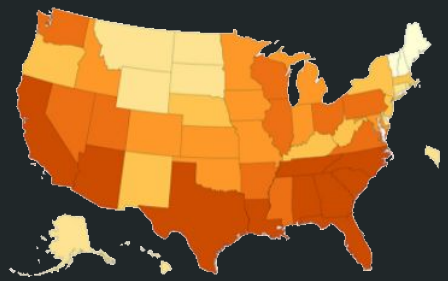
Introduction - Social Media in Disaster

Twitter.com

In recent years, social media has become nearly ubiquitous for connecting people across the globe

These platforms generate a wealth of data, which can be used to help track the spread of the corona virus

Twitter Covid Tracking: Overview



We have developed an app to gather tweets referring to new corona cases in the US to augment traditional disease tracking methods during this pandemic

The app is designed to gather information daily from 15 major cities across the country

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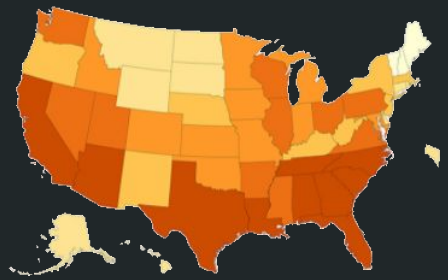

User tweets that they or someone close to them has tested positive

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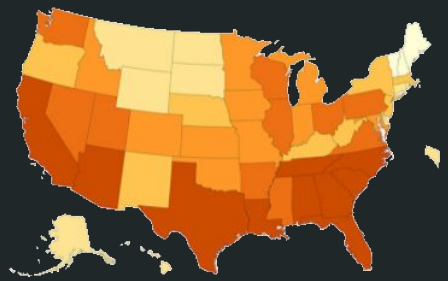

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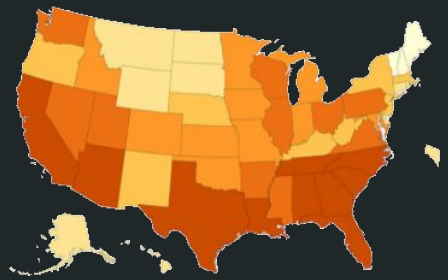

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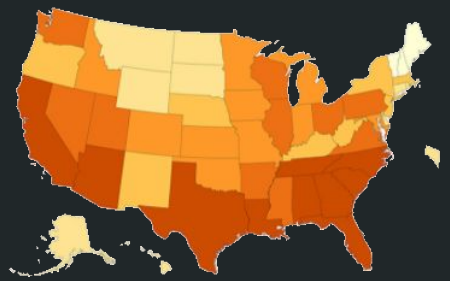

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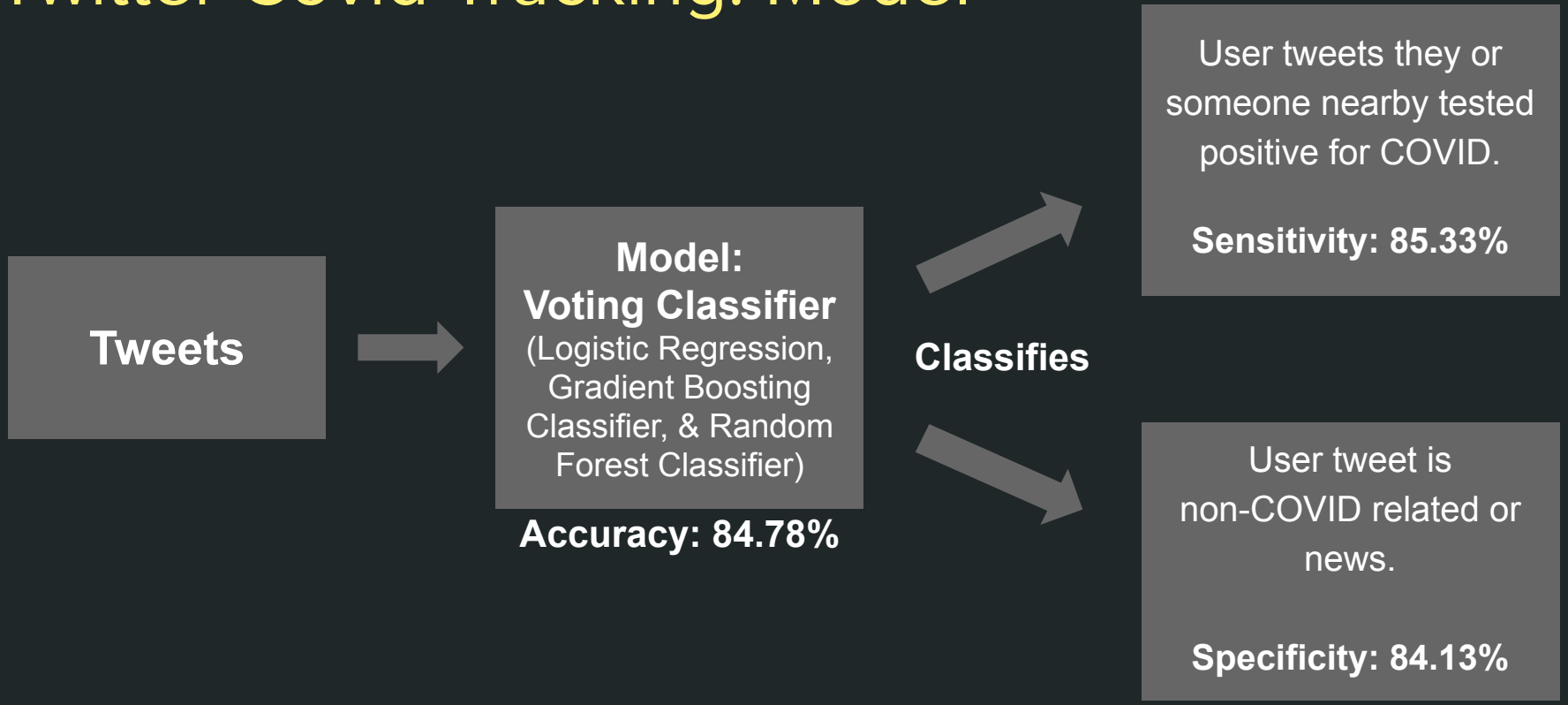
Covid case data is visualized using a Tableau dashboard

Twitter Covid Tracking: Model



Twitter Covid Tracking: Dashboard Demonstration

https://public.tableau.com/views/COVID-19Hotspots_15973852974230/COVID-19Hotspots?:language=en&:display_count=y&publish=yes&:origin=viz_share_link

Conclusions

We have developed a system for tracking reports of covid-19 using Twitter in near real-time. The system is also capable of being adapted for a variety of uses, which can be accomplished by tuning parameters such as:

- Update frequency
- Twitter search query
- Examined locations

Possible areas for improvement would be the implementation of more sophisticated NLP models for better predictions, as well as potentially adding other social media platforms. However, we have created here a firm foundation for leveraging the power of crowd reporting to improve public reporting during times of disaster

Questions?

Thanks for listening!