ANALYZING COVID-19: A DATA-DRIVEN JOURNEY THROUGH THE PANDEMIC

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Subject : INFO 5709.003

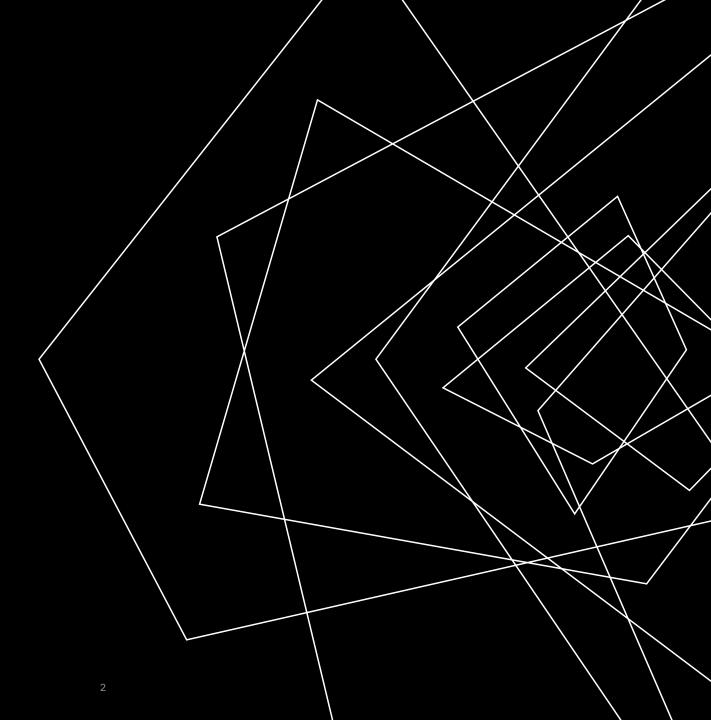Professor Name : Jian Yang

AGENDA

Problem Statement

Motivation
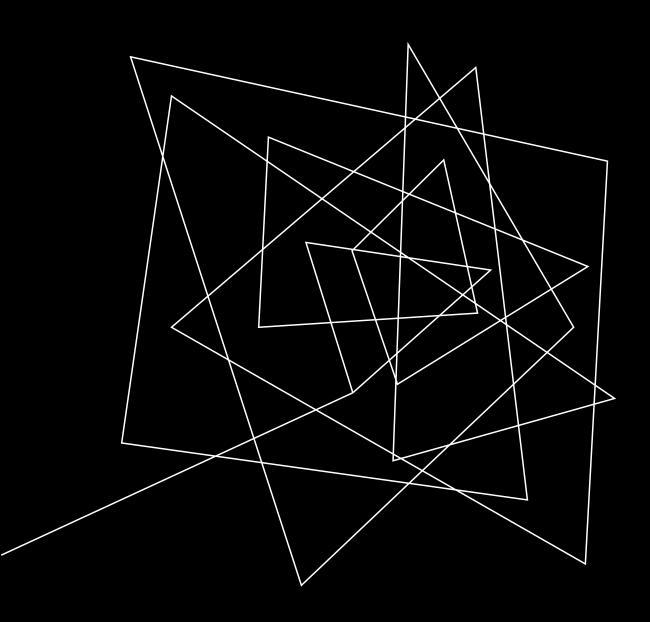
Approach

Research Question

Result

Future Work

PROBLEM STATEMENT

- Major global health and financial crises have been brought on by the COVID-19 pandemic.

- Making informed decisions about policy requires knowledge of the virus's impact and distribution.

- To describe COVID-19 patterns, data-driven insights are required.

MOTIVATION

- One of the most severe recent worldwide health problems is the COVID-19 pandemic.

- As the pandemic progresses, huge quantities of COVID-19 data are being gathered everyday.

- Understanding how this data affects global health requires analysis and visualization.

APPROACH

- Data manipulation and analysis on COVID-19 datasets were done using Python.

- Five different datasets in total were used.

- Techniques: geographical analysis, exploratory analysis, statistical modeling.

- Focused on spotting trends and patterns in:

  1. Spread and transmission

  2. Impacts on health

Q1 ———————— What was the overall spread across the globe?

Q2 ———————— Did weather have any impact on the number of confirmed Covid-19 cases?

Q3 ———————— Does age play an important role in Covid-19?

Q4 ———————— Has there been any variation or evolution in the symptoms of COVID-19 over time?
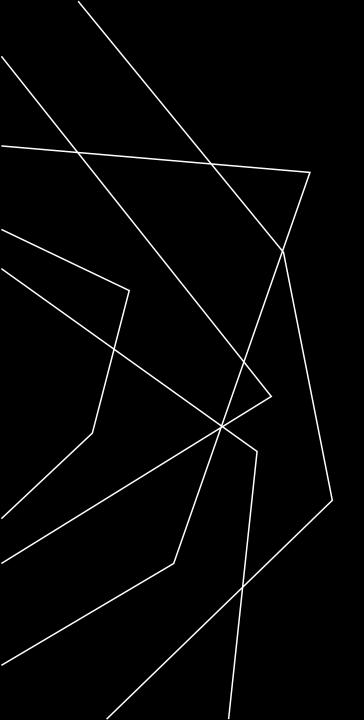
RESEARCH QUESTION

RESULT

https://colab.research.google.com/drive/1gGnq62YcLX8LNsZHK_6jKoyW8HlEvCDu?usp=sharing

FUTURE WORK

- Regression, clustering, and neural networks are examples of advanced models.

- Real-time monitoring and forecasting should be operationalized.

THANK YOU