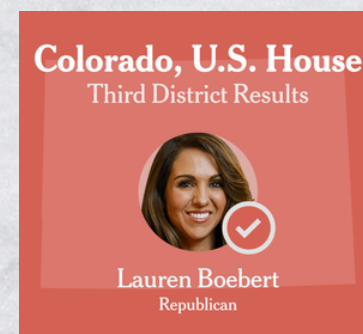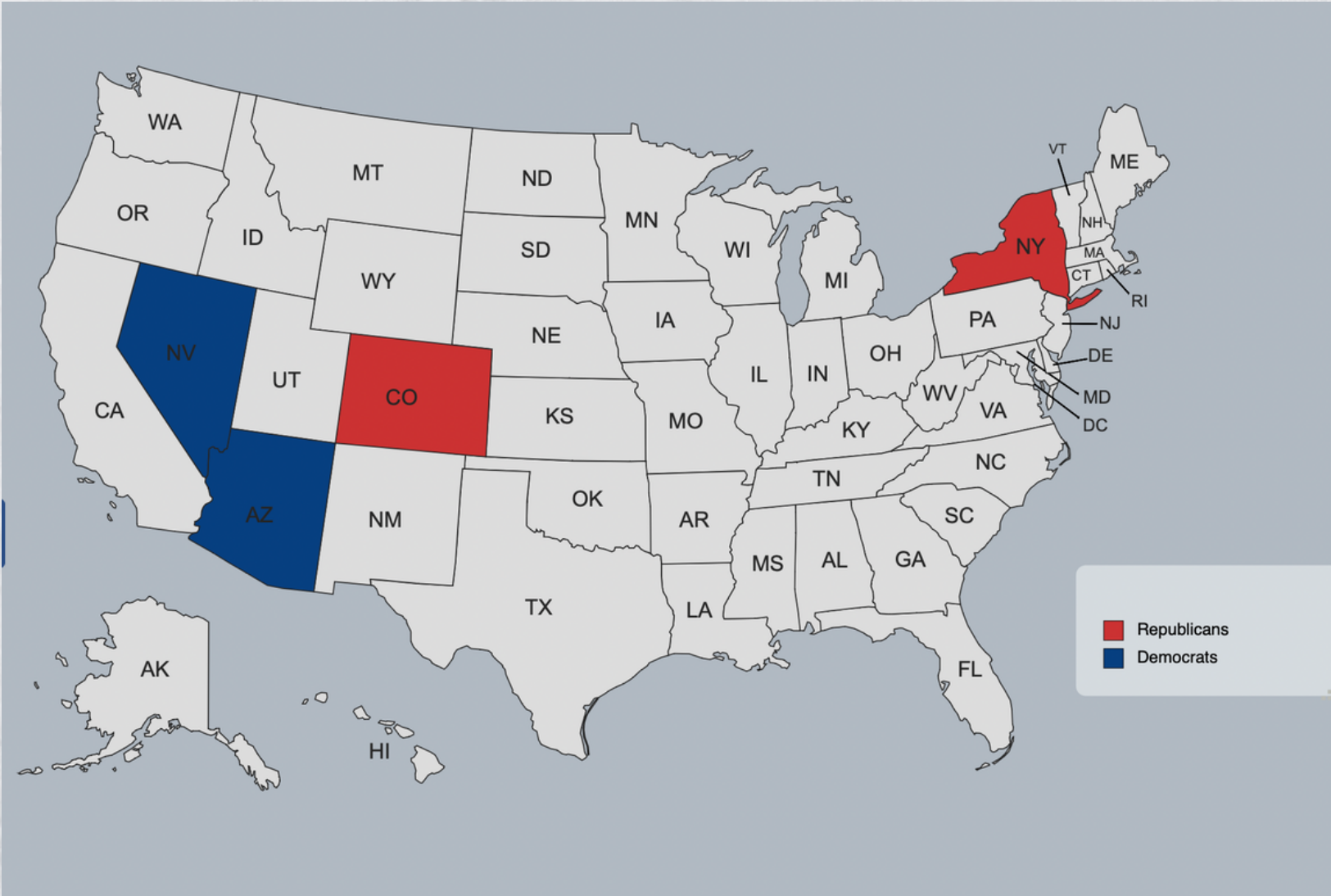# Pradyumna Parshi

FAKE NEWS IMPACT ON 2022 ELECTIONS

The spread of fake news has become a concern, especially during elections. In this project, we compare and analyze the amount of fake news by two media organisations in four different states.

Republicans
Democrats

New York, U.S. House
Third District Results
George Santos
Republican

Nevada, U.S. Senate
Election Results
Catherine Cortez Masto
Democrat

Colorado, U.S. House
Third District Results
Lauren Boebert
Republican

Arizona, Governor
Election Results
Katie Hobbs
Democrat

INTRODUCTION: We start by building our fake news detection model by using Python and Machine learning. We train our model by taking a training set consisting of fake and real news and then using articles from Breitbart and Washington Post we analyze the extent of fake news.

WASHINGTON POST V BREITBART

Nevada Senate - Washington Post
Fake 37.6%
Real 62.4%
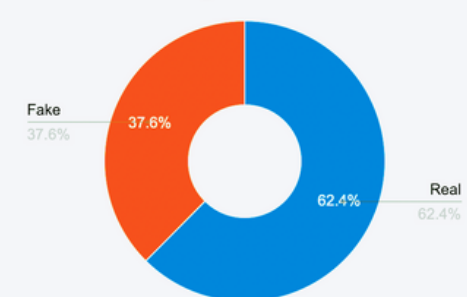
Colorado 3rd Congressional - Washington Post
Fake 30%
Real 70%
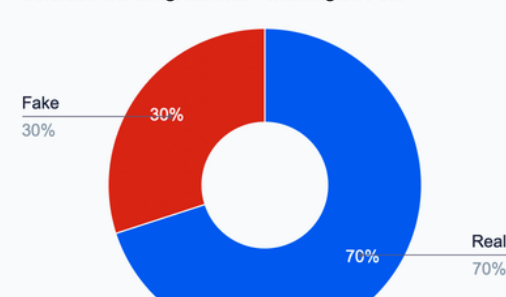
New York 3rd Congressional - Washington Post
Fake 41.7%
Real 58.3%
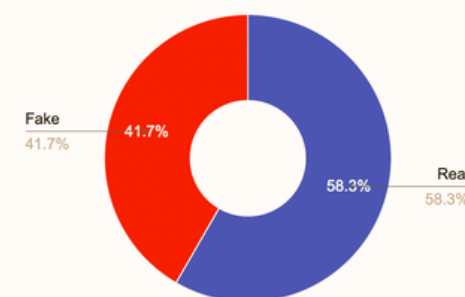
Nevada Senate - Breitbart
Real 6.4%
Fake 93.6%

Colorado 3rd Congressional - Breitbart
Real 15.4%
Fake 84.6%
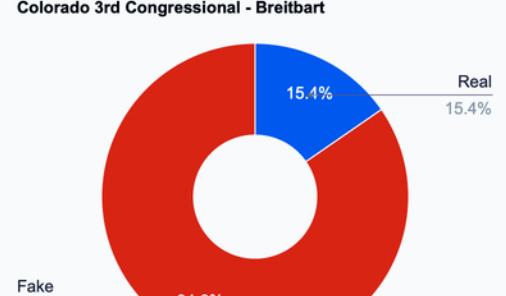
New York 3rd Congressional - Breitbart
Real 16.7%
Fake 83.3%
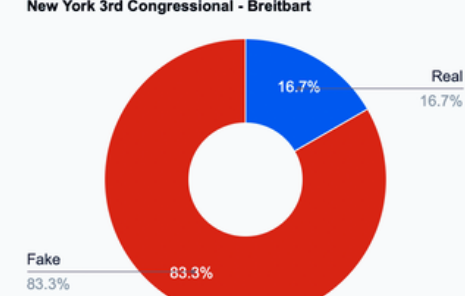
Arizona-Washington Post
Fake 26.9%
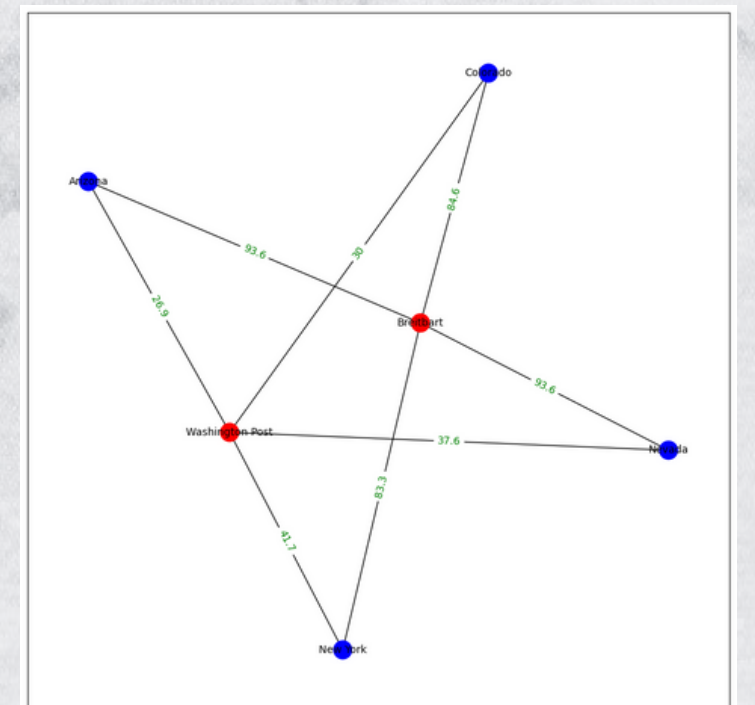Real 73.1%

Arizona-Brietbart
Real 6.4%
Fake 93.6%

METHODOLOGY

Once the fake news model depicts the required accuracy, we load the respective text from both newspapers in the text box in the Python code and run it. Another key aspect to note while loading the text is to avoid special characters indentation, tags, etc. Note down the results and represent the percentage of real and fake news as donut charts

RESULTS

Weighted Bipartite Network

- Nodes are divided into 2 distinct groups: States and News organizations.
- The connections (edges) represent the relationship between the states and the news organizations with weights indicating the percentage of news deemed fake.

CONCLUSION

- The correlation between Breitbart and Washington Post across the four states is -0.37. This implies that the percentage of fake news from Breitbart tends to increase, the percentage of fake news from the Washington Post tends to decrease and vice versa.
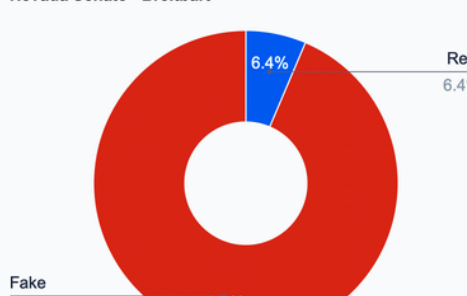
References:
- https://github.com/Rowan1697/FakeNews
- https://www.nytimes.com
- https://www.washingtonpost.com
- https://www.breitbart.com