

CIS550- Fall 2018

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Project Proposal: We are going to create a calendar web app that allows users to explore political trends over time. Users can click on particular days and see trends in Twitter sentiment with respect to politics, news headlines, presidential approval ratings, ballot polls and stock prices. Users will also be able to filter by characteristics (such as “which events are correlated with the largest difference in approval rating?”) and by time period (such as week or month).

Datasets: fivethirtyeight daily presidential approval ratings (.csv), fivethirtyeight daily generic ballot polls (.csv), Twitter API, daily top national headlines from Google News API, historical stock prices (.csv)

Technology: Flask/Python, postgresSQL, Heroku, Twitter API, Google News API

Key Questions:

1. What were the Twitter trends (with respect to politics), leading news headlines, economic trends (stock prices, etc.), and presidential approval rating on a given day (starting Jan 20, 2017)?
2. What events most heavily impacted the president’s approval rating?
3. What are the sentiments of the most popular tweets on a given day?
4. What are the overall trends of these data grouped by weeks and months?
5. How well do two variables (twitter trends, stock prices, etc.) correlate over a given time frame?
6. For a given event keyword (such as ‘hurricane’, ‘medicare’, etc.), how did the presidential approval rating change the LAST time this was an event keyword? For example, if there is an impending hurricane today, how did the presidential approval rating change last time there was a hurricane in the US?