

Twitter Sentiment Analysis and Visualization

Venkata Sai Pramod Reddy Guntaka,¹ Aman Kumar Gupta,¹ Sravya Somisetty¹

Faculty: Sue Abdinnour²

¹*Department of Electrical Engineering and Computer Science, College of Engineering*

²*Dept. of Finance, Real Estate, & Decision Sciences, W. Frank Barton School of Business*

Twitter is a social networking site where users interact by posting messages called “tweets”. The tweets cover a wide range of topics including personal, business, and government tweets from all over the world in multiple languages. Twitter presents a crucial data source for various types of analysis. Our research focuses on sentiment analysis of tweets. To achieve this objective, we first collect tweets using a Python library based on a keyword search query (like COVID-19) or a twitter handle for a person i.e. all the tweets made by this person’s handle (like @realdonaldtrump). This data collection process is performed on a day basis (last 24 hours) and added to a master data file, which is cumulative. The data collected allows us to analyze them over certain periods of time such as the past day, week, month, and years (when available). The sentiment analysis is then performed by analyzing the text of the tweets and generating positive and negative sentiments for each tweet. We also analyze other metrics, such as the count of tweets, popular positive and negative words used in tweets, etc. We then visualize the sentiment analysis on a dashboard with various types of charts, including maps to understand the geographic origin of tweets, a density chart with positive, negative and neutral tweets along a timeline, bar charts visualizing the most popular hashtags, a Word Cloud representing the most important words across the tweets, and many more. Work in progress will be shared.