JOB SEARCH USING SENTIMENT ANALYSIS ON TWEETS

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Problem Statement

A key aspect of finding top recruits for a new position is knowing where to place a job posting. Equally so, the secret to finding the top job opportunities is knowing where to look. This all begins with either what to label the posting or what to search for. Sentiment analysis can be vital in determining the best job postings and search methods.

Abstract

The objective of this project is to conduct a comprehensive search for job opportunities on Twitter. It is essential to acknowledge the potential of Twitter as a valuable tool for job seekers. Properly utilized, Twitter can significantly enhance one's chances of success in the job search process. By taking measured steps, individuals can leverage the platform as their personal job search engine. My approach to this project entailed collecting job-related tweets through Python language, and subsequently employing machine learning algorithms and sentiment analysis to identify relevant job opportunities. Notably, specific hashtags proved to be instrumental in facilitating the discovery of employment prospects.

Introduction

In comparison to social media job search powerhouses such as LinkedIn, Twitter is often overlooked as a tool for achieving job search success. Nevertheless, it would be unwise to underestimate its potential.

Twitter's primary function is to enable users to disseminate succinct messages to vast audiences. As a job seeker, you can leverage this platform to your advantage in several ways, including discovering concealed job opportunities, networking with influential insiders, researching prospective employers and interviewers, and establishing your professional brand within your industry.

To fully harness the potential of Twitter for your job search, you must devise a targeted approach that aligns with your specific objectives. Hashtags are a great way to search for new job opportunities on twitter and are generally a great targeted approach for searching. Some popular hashtags used to find general job possibilities include:

- #Hiring
- #Jobs
- #Careers
- #TweetMyJobs
- #JobOpening
- #JobListing
- #JobOpportunities
- #HR
- #GraduateJobs

Twitter can serve as a valuable tool for gaining insights into individuals and businesses. By following employees of a particular organization, one can obtain an insider perspective on the company's culture and values. This can be discerned by gauging whether they actively extol the virtues of their employer or view their job as an arduous task.

Moreover, observing a company's tweets and responses to others can offer further insights into their culture. Twitter can be instrumental in helping job seekers answer several critical questions, such as identifying recent changes in the organization's structure, unveiling new products, and staying abreast of industry developments. Additionally, Twitter can shed light on how the company defines the role you're interested in, the background of the team you'll be working with, and the company's major competitors.

Prior to an interview, it is imperative to have a sound understanding of the company's operations, values, and goals. By leveraging the insights gained through Twitter, job seekers can enhance their level of preparedness and demonstrate their knowledge and enthusiasm for the organization.

Why Twitter?

Twitter is deemed a more suitable platform for sentiment analysis compared to traditional internet articles and blogs. This is primarily due to the vast amount of relevant data available on Twitter, which enables a more extensive analysis. Additionally, the responses on Twitter are more immediate and diverse since the number of users who tweet is significantly higher than those who regularly write blogs.

Sentiment analysis also has potential applications in predicting popular political elections and polls. A study conducted in Germany by Tumasjan et al. [1] demonstrated that Twitter is a reliable reflection of offline sentiment, making it a promising tool for such analyses.

Tools Used:

- Python
- Tweepy – Python library for accessing the Twitter API
- TextBlob – Python library for processing textual data that provides an easy-to-use interface for tasks such as sentiment analysis, part-of-speech tagging, and noun phrase extraction
- Tableau

Results

Figure 1.1 shows the breakdown of the sentiment scores of each hashtag. It was found that the Marketing hashtag generated the most positive sentiment while the jobOpenings hashtag generated the most negative sentiment.

Hashtage Sentiment

| Negative | Neutral | Positive |
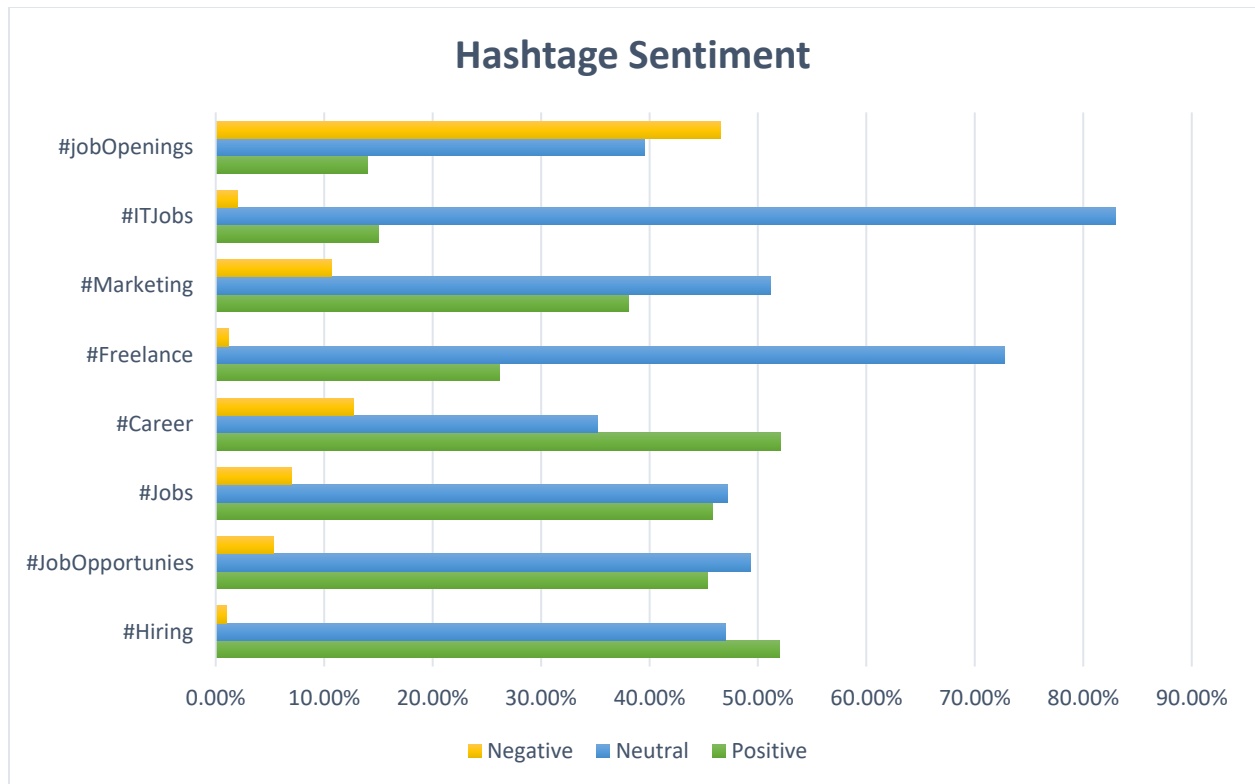
Conclusion

In conclusion, Twitter's inherent capability to enable users to transmit concise messages to a vast audience presents an opportunity for job seekers to leverage the platform as a personal job search engine, as long as the platform is employed in an intelligent manner, thereby substantially enhancing their job search success, and a meticulous adoption of small steps towards this end will assist in transforming Twitter into an invaluable job search platform, the benefits of which can be experienced by all who undertake it.

References

1. Tumasjan A, Sprenger TO, Sandner PG, Welpe IM. Election Forecasts With Twitter: How 140 Characters Reflect the Political Landscape. Social Science Computer Review. 2011;29(4):402-418. doi:10.1177/0894439310386557