



# Analyzing Twitter Population Behavior based on Timberwolves Wins & Losses



## Why Sentiment Analysis?

- If you are to sponsor a team...
- If you are to estimate merchandise

The collective emotions in public posts will tell the team popularity or reveal the future



## Why AWS?

- Scalable storage
- Easy access
- High analytical frequency
- Compatibility with IaaS, PaaS and SaaS



## Process Roadmap

- Scrape relevant data from Twitter handles leveraging Python
- Conduct sentiment analysis on tweets
- Store the data into S3
- Find correlation between the Timberwolves' wins and the # of positive tweets



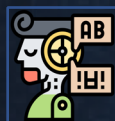
Data Source



Data Cleaning



Sentiment Analysis



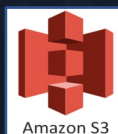
Correlation Analysis



NLP



Storing Historical Data



## • • • The Big Reveal • • •

The # of positive tweets after a Timberwolves game is...



**HIGHLY correlated with**

- Timberwolves score (0.85)
- Assists (0.74)
- Rebounds (0.71)



**LESS correlated with**

- Blocks (0.13)
- Steals (0.17)

**\$** When Sponsoring, look at the winning features more!  
**\$** When Selling, highlight more relevant products!

## • • • Other Applications • • •



**Public Policies**

**Understand Public Reactions:**

Detect how people react to public policies by scraping social media responses, conducting sentiment analysis and studying the correlations between each aspects



**Marketing**

**Evaluate Marketing Campaigns:**

Monitor and measure customer feedback and interaction during a certain marketing campaign by streaming the sentiment analysis and associating customer attitudes with product features to further adjustment either on the campaign or the product

## • • • Our TEAM • • •

Beepa Bose [bose0084@umn.edu](mailto:bose0084@umn.edu) - Jingwen(Echo) Pei [pei00033@umn.edu](mailto:pei00033@umn.edu) -  
Lakshya Garg [garg0119@umn.edu](mailto:garg0119@umn.edu) - Prachi Sharma [sharm746@umn.edu](mailto:sharm746@umn.edu) -  
Zhanglin Shanguan [shang176@umn.edu](mailto:shang176@umn.edu) - Zhaoyan Zhi [zhi00009@umn.edu](mailto:zhi00009@umn.edu)