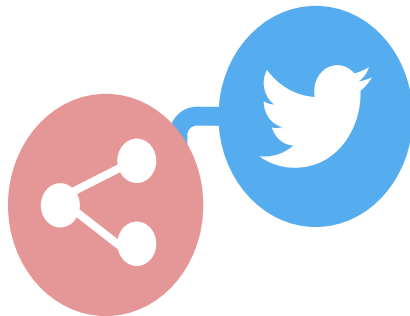


The Google logo, consisting of the word "Google" in its characteristic multi-colored font.The Apple logo, featuring a black silhouette of an apple with a bite taken out of it, followed by the word "Apple" in a black sans-serif font.

Beyond Words: Sentiment Analysis with NLP

Claire Sarralle, Danayt Aman
Deniz Emre, Gavin Martin

Who we are?



Investment Consulting Company

“Sentiment Detectives “

Target Audience



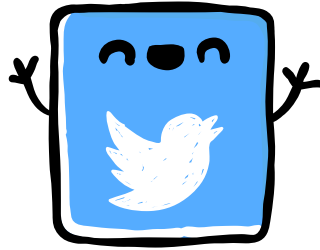
Retail Tech Investors

Overview

Apple



Google



Project Objective

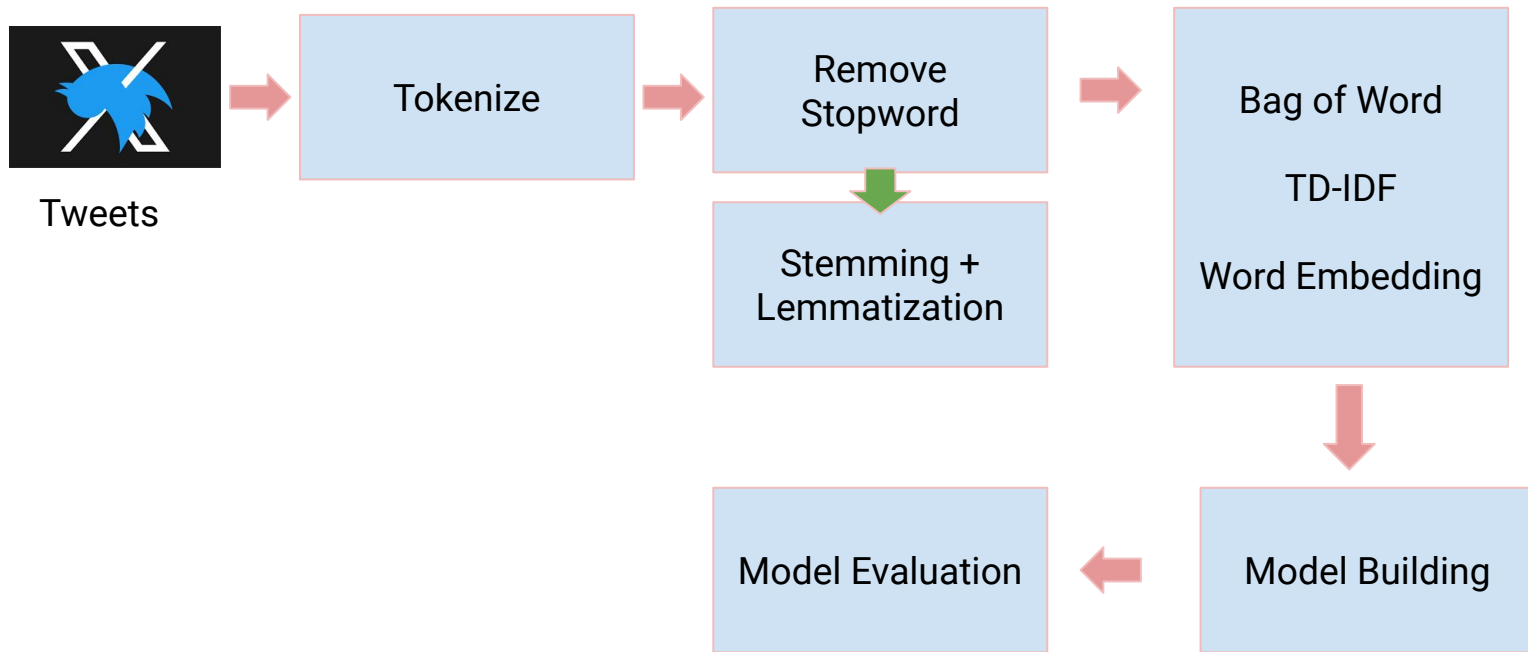
Leverage sentiment analysis from the SXSW to:

- Capture sentiments
- Guide retail investors
- Real time insights

Data Understanding

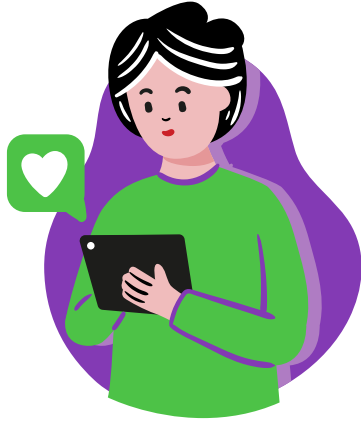
- Data sourced from Twitter/ X tagged with 2013 SXSW hashtags
 - 9,093 instances
 - Features:
 - Tweet text
 - Emotion in tweet
 - Brand and/or products mentioned in tweet
-

Data Cleaning



Recorded Sentiment

58%



Positive Emotion

7%



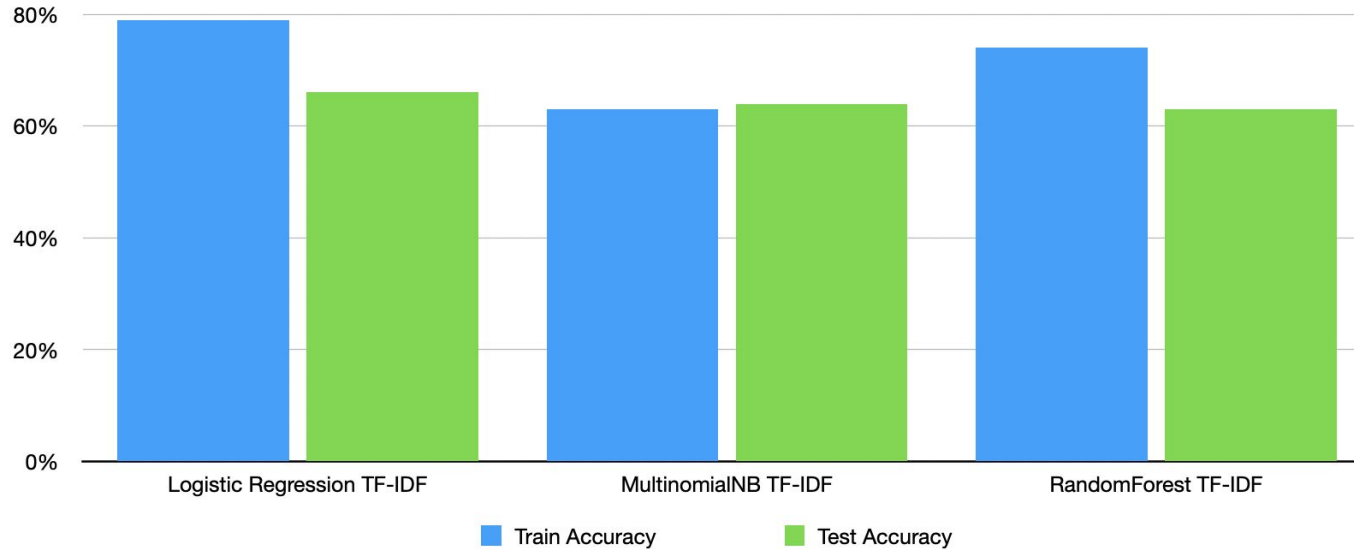
Negative Emotion

35%



No Emotion/I Can't tell

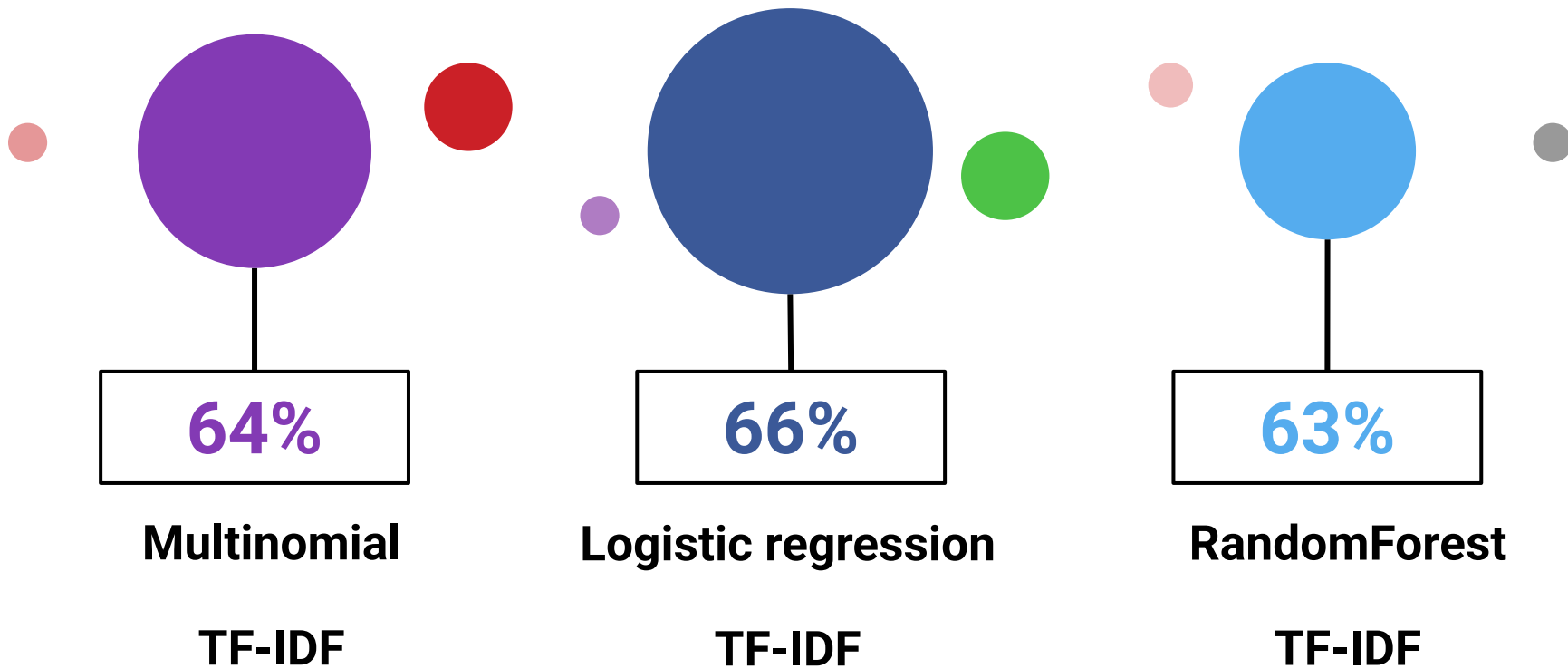
Model Performance



Top 3 Models

	Val Score	Train Accuracy	Train Recall	Train Precision	Train F-1 Score	Test Accuracy	Test Recall	Test Precision	Test F-1 Score
Logistic Regression TF-IDF	65%	79%	79%	81%	77%	66%	66%	65%	63%
MultinomialNB TF-IDF	60%	63%	63%	59%	58%	64%	63%	59%	58%
RandomForest TF-IDF	60%	74%	74%	80%	71%	63%	64%	63%	57%

Best Performing So Far



Limitations and Next Steps

Limitations:

- Limited Context
- Severe imbalance
- Quality of Text Data

Next Steps:

- Gather more data
- Deep learning models

THANK YOU



Claire Sarraille



claire-sarraille



clairesarraille



Danayt Aman



danayt-aman



Danayt09



Deniz Emre



demre



DenizzEmre



Gavin Martin



gavin-martin-



GitHbGav