'Covid Vaccine' Tweets

Sentiment Analysis with Natural Language Processing

by David Bruce

Content Outline

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A Global Pandemic

January 20, 2020

First known case of the novel Coronavirus arrives in the US

September 22, 2020

US surpasses 200,000 deaths

December 14, 2020

First inoculation given to public of FDA approved Pfizer vaccine

Results Preview

Multiclass Classification

Model	Train F1	Test F1
Naive Bayes	0.723	0.709
SVM	0.829	0.815
RandomForest	0.312	0.311

CRISP-DM

An Iterative Process

Webscraping Twitter

Twint

Data Cleaning

Pandas

NLP & EDA

NLTK, SpaCy, VaderSentiment

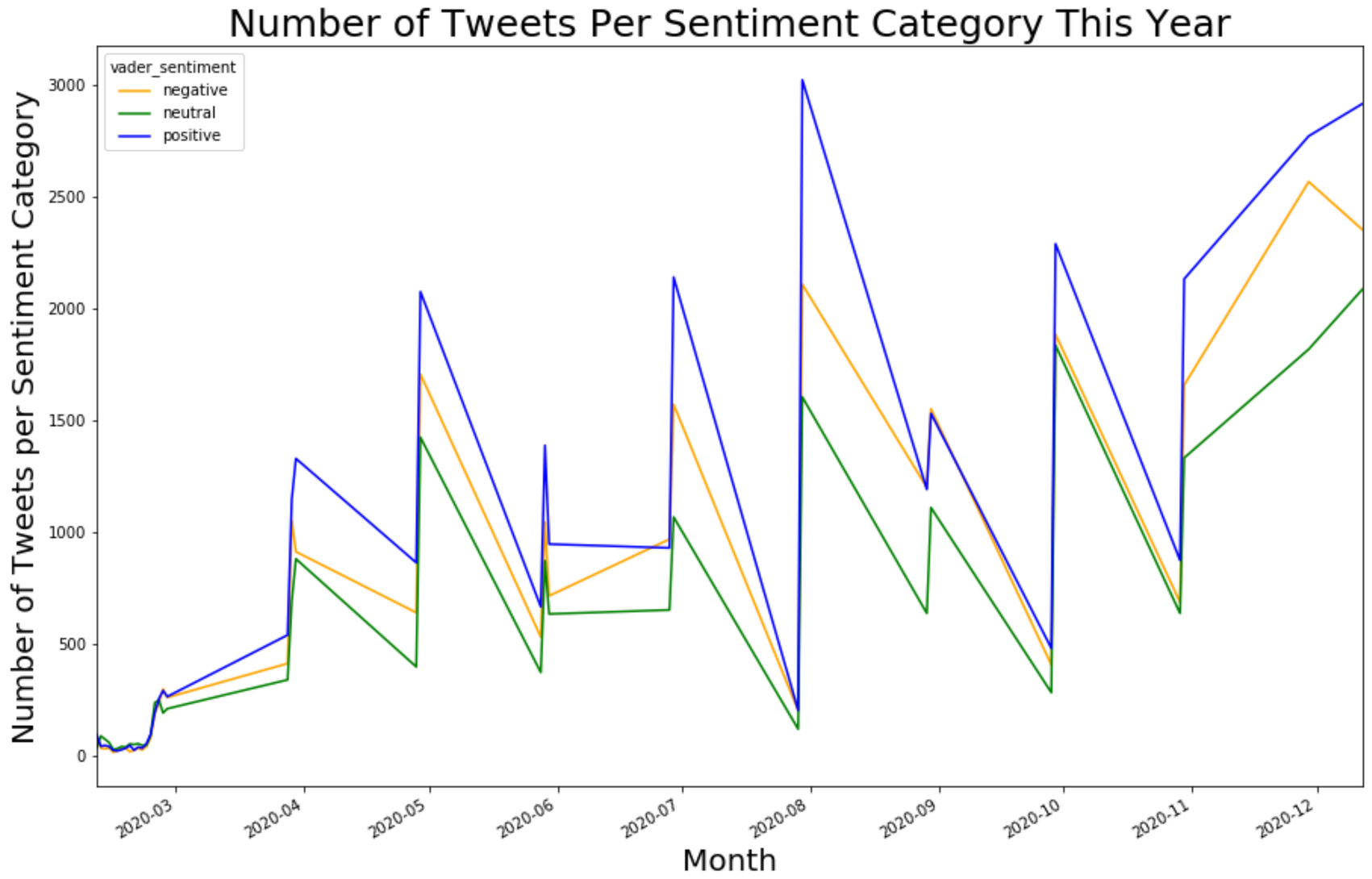
Modeling

Scikit Learn

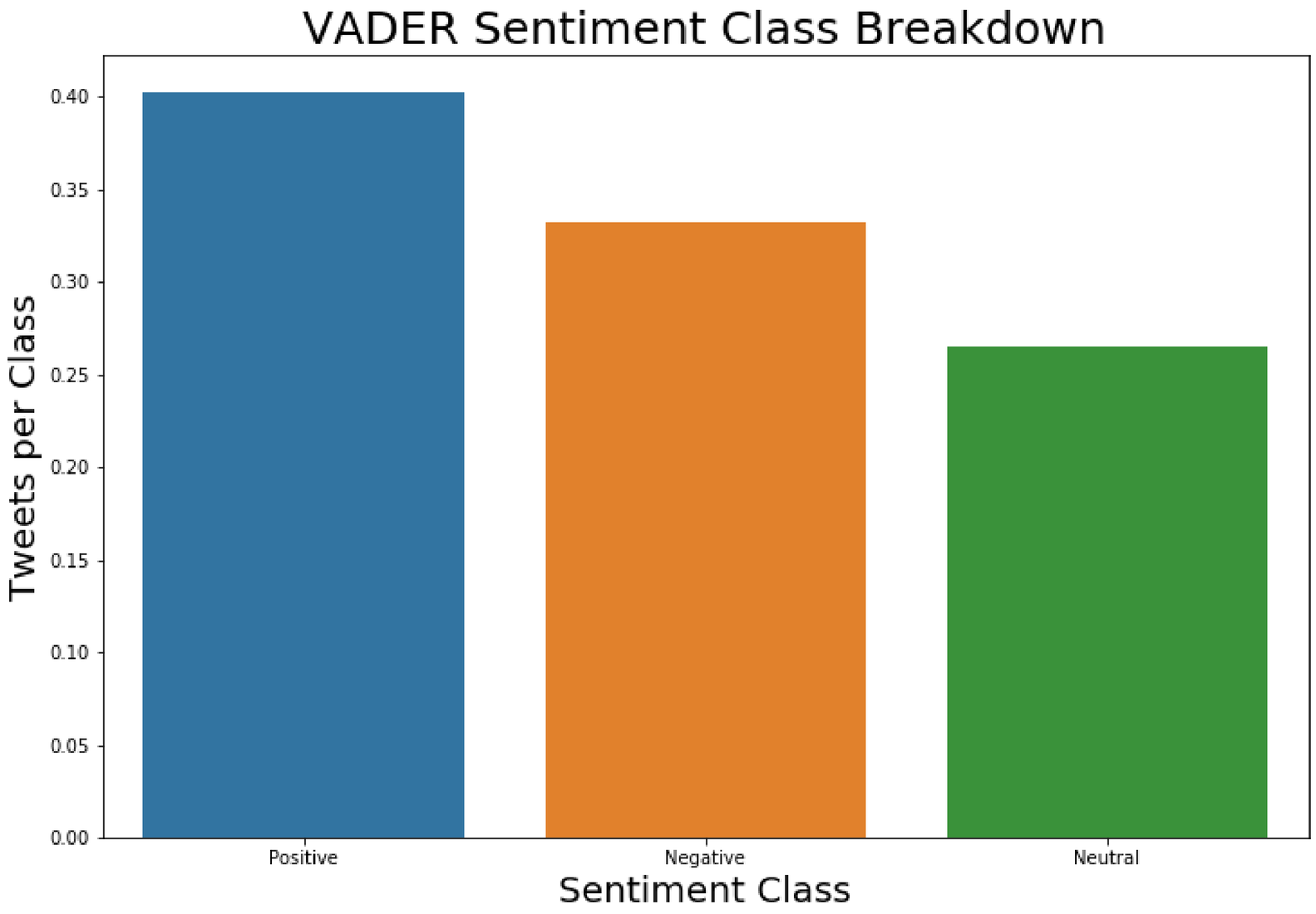
Reiterate

Also used: Matplotlib, Seaborn, WordCloud, and Numpy

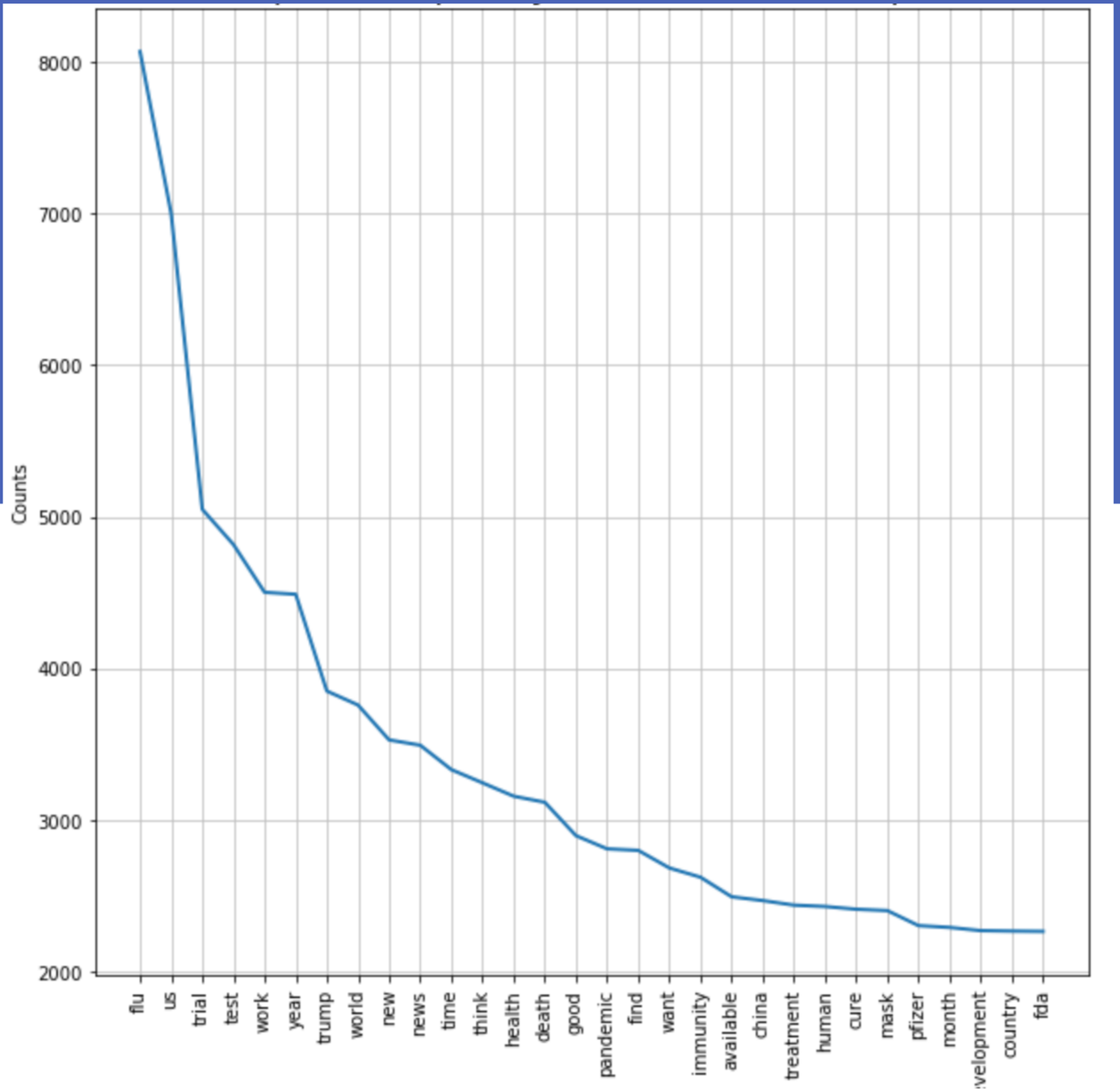
DATA ANALYSIS - 1



DATA ANALYSIS - 2

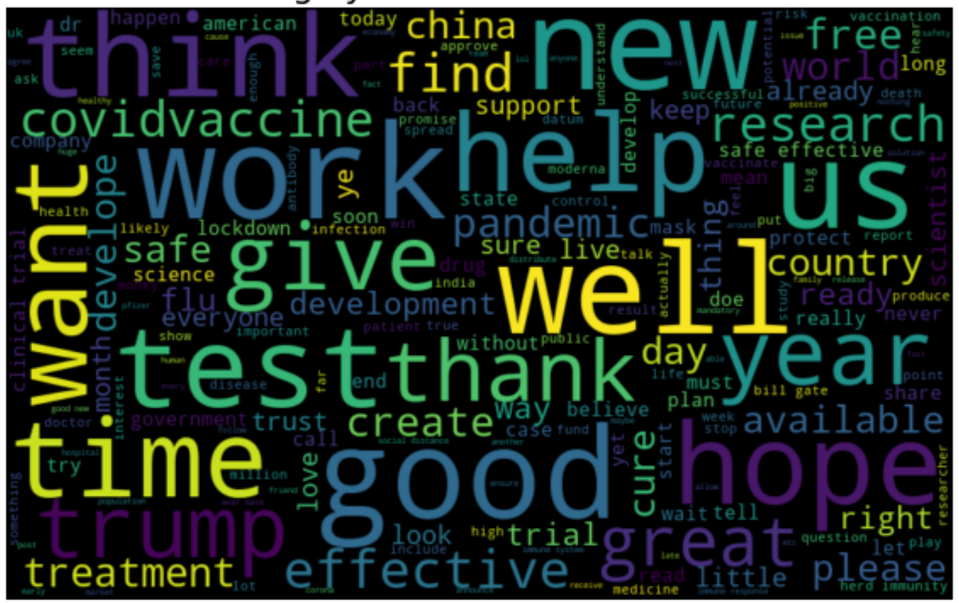


DATA ANALYSIS - 3

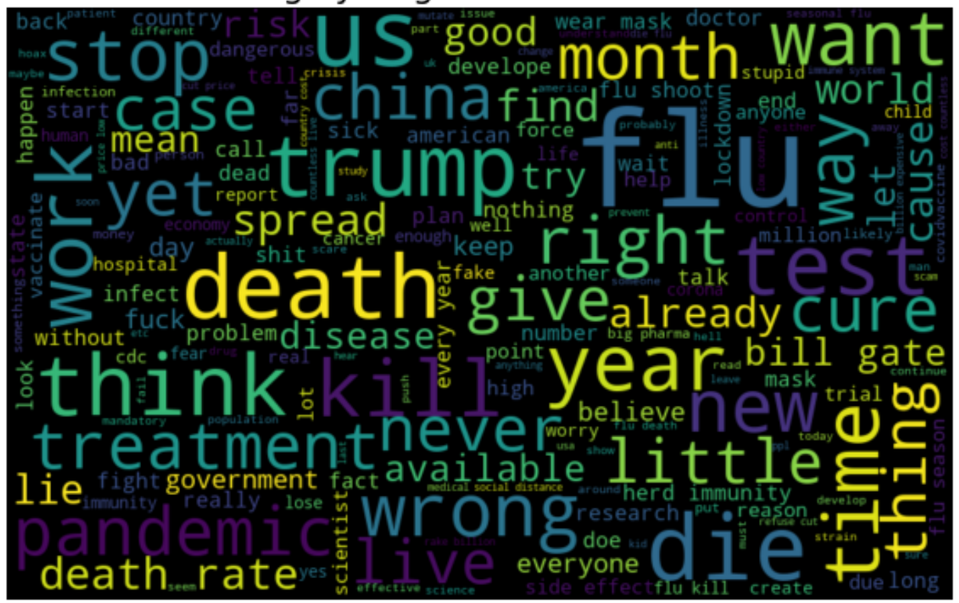


DATA ANALYSIS - 4

Highly Positive Wordcloud



Highly Negative Wordcloud


us
stop
flu
trump
want
month
good
wear mask
doctor
case
china
find
work
yet
right
test
death
give
already
cure
think
kill
year
new
bill gate
treatment
never
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little
lie
wrong
pandemic
live
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time
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rate
disease
risk
dangerous
develop
stupid
world
way
cause
mean
spread
nothing
keep
flu shoot
lockdown
anyone
end
hospital
infect
fake
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state
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worry
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show
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doe
kid
refuse cut
strain
due
flu season
covidvaccine
scam
hell
big pharma
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leave
continue
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put
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part
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Next Steps

More Data

Location Based Tweets

LDA Topic Modeling with Gensim

Thank You.

Any Questions?

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