

# The Tweets Classification

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# Quick Overview

- SMS SPAM Dataset is used to train model

<https://www.kaggle.com/datasets/uciml/sms-spam-collection-dataset>

- The dataset is cleaned, stop words are removed, lemmatized and tokenized for vectorization and analysing.
- TF-IDF Vectorization is used.

[https://www.linkedin.com/learning-login/share?account=2169170&forceAccount=false&redirect=https%3A%2F%2Fwww.linkedin.com%2Flearning%2Fnlp-with-python-for-machine-learning-essential-training%2Finverse-document-frequency-weighting%3Ftrk%3Demail\\_share](https://www.linkedin.com/learning-login/share?account=2169170&forceAccount=false&redirect=https%3A%2F%2Fwww.linkedin.com%2Flearning%2Fnlp-with-python-for-machine-learning-essential-training%2Finverse-document-frequency-weighting%3Ftrk%3Demail_share)



# Model Training and Evaluation

- Random Forest Model is used.
- Dataset is split into test and training set on 20%.
- Precision: 0.97
- Recall: 0.87
- Accuracy: 0.97

# Tweet Analysis

- The Ukraine and Russia war have got a huge support on the Social Media Platform.
- Let's assess the sentiment of the people around the world on the topic.
- **Also, Let's check the authenticity of the tweets by classifying Not SPAM/ SPAM tweets.**
- Key words:
  1. Ukraine
  2. Russia
  3. War
- Total 45937 tweets have been scraped on the topic Ukraine and Russia War

# SPAM Classified Tweets

- Does everyone know why China 𐄂𐄂𐄂𐄂𐄂𐄂 war with Taiwan 𐄂𐄂𐄂𐄂𐄂𐄂? And Russia 𐄂𐄂𐄂𐄂𐄂𐄂 war with Ukraine 𐄂𐄂𐄂𐄂𐄂𐄂? Because Obama stole my seat in 2012. Trump stole my seat in 2016. Biend stole Presidential seat in 2021 from President Prince Seng Heng. If Biend gives seat back to me the war will the end.
- International case study ..even it need in reecent time. Example doklam issue Sevene sister issue Russia Ukraine war S 400 deal etc.
- The war in Ukraine was supposed to happen in 2016, after Hillary Clinton won. The Trump/Russia hoax was a response to justify why she didn't win.

# SPAM Tweet

## **Tweet**

- Uncivilized Russia just killed 50 Ukrainian prisoners of war with a missile fired at the prison they were held at , primitive Russia needs to pay for these atrocities they are committing in Ukraine !

## **Sources sound different**

- <https://www.telesurenglish.net/news/Russian-MoD-50-Ukrainian-Officers-Killed-in-Long-Range-Strike-20220619-0023.html>
- <https://www.tasnimnews.com/en/news/2022/06/19/2731013/russia-says-over-50-ukrainian-generals-officers-killed-in-missile-strike>
- <https://www.aa.com.tr/en/russia-ukraine-war/over-50-ukrainian-prisoners-of-war-reportedly-killed-in-shelling/2648513>

# Word cloud Analysis

## Overall, tweet analysis



# SPAM tweet analysis

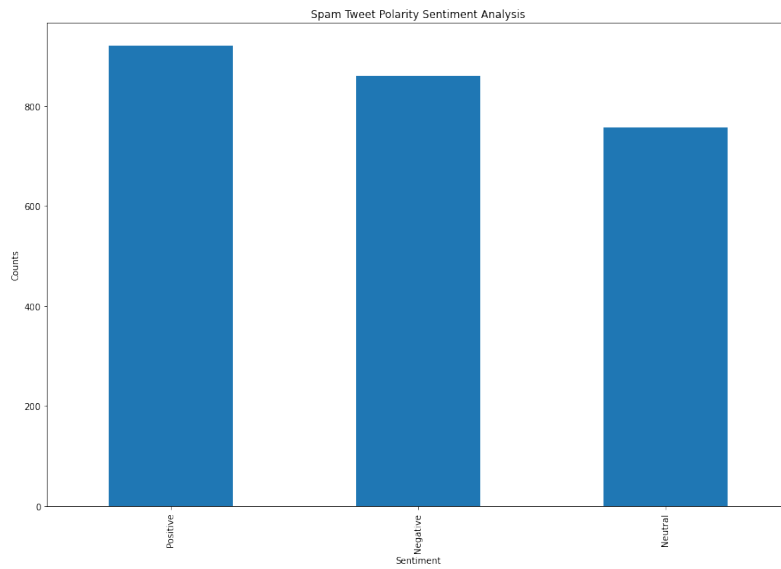


## Not SPAM tweet analysis

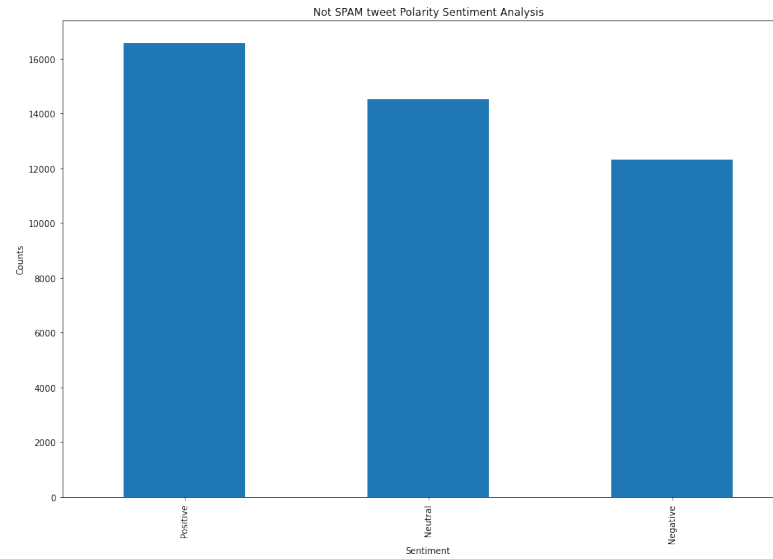


# Polarity Sentiment Analysis

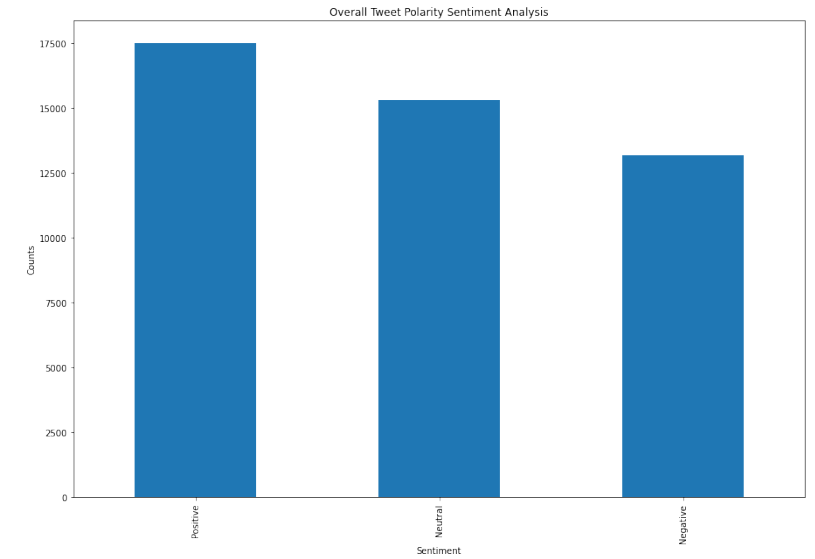
SPAM



Over all Tweet SPAM



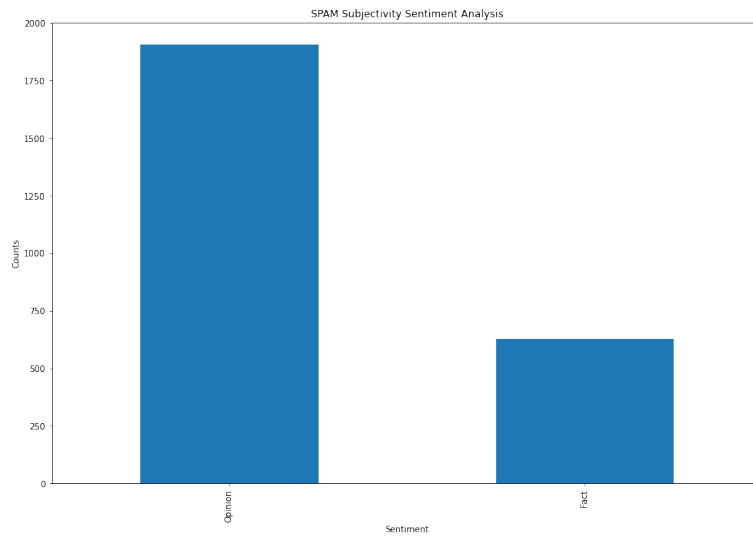
Not SPAM



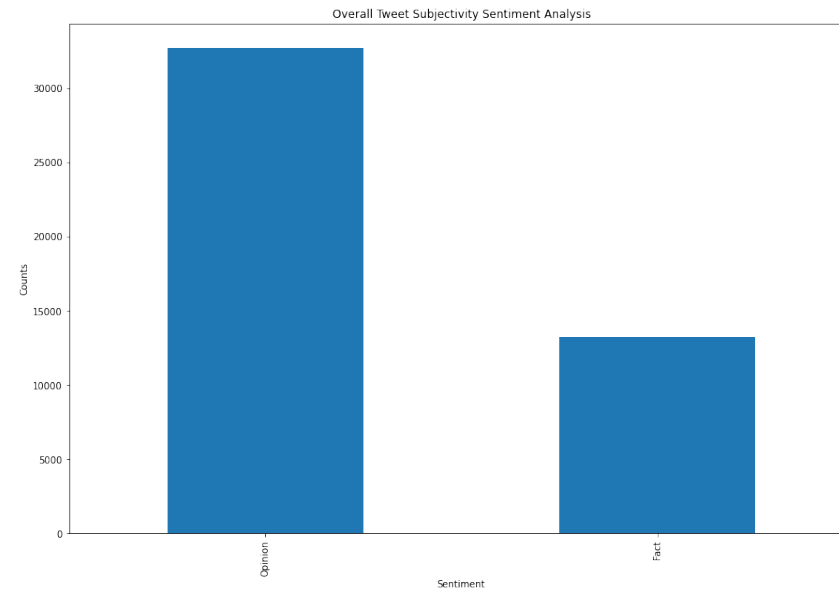


# Subjectivity Analysis

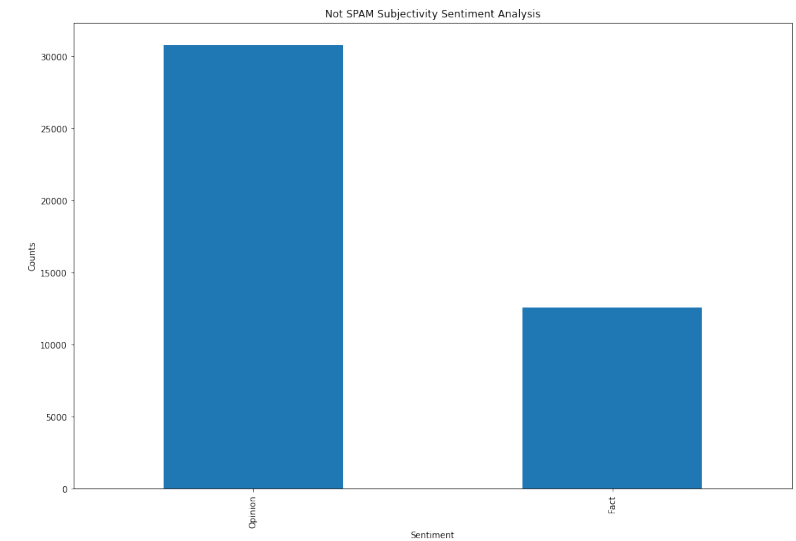
SPAM



Over all Tweet SPAM



Not SPAM



# Thank you...