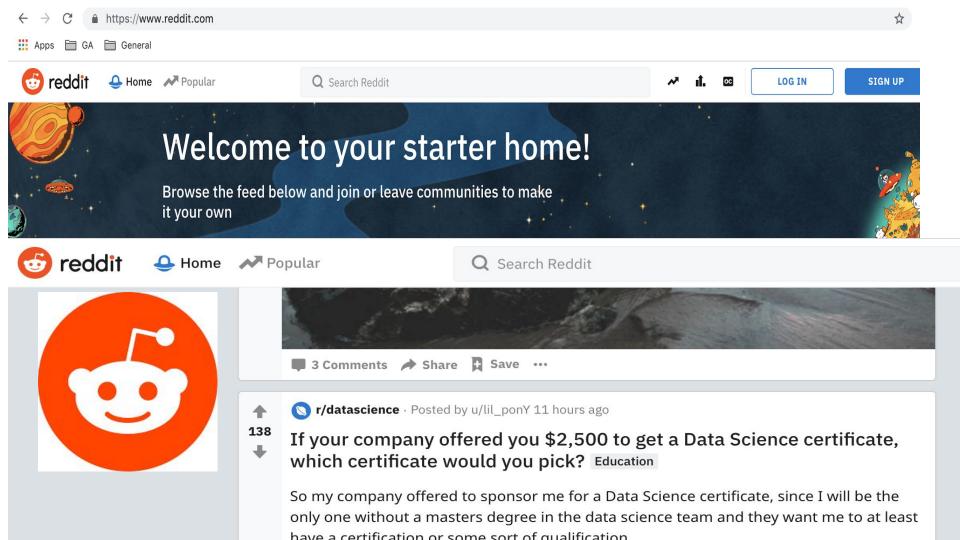
Classifying Reddit Posts

- Aruna Rayapeddi
- 04/05/2019

Social Media





Problem Statement

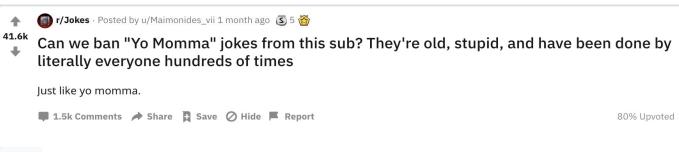
- Considering two subreddits, given a Reddit post, Identify and classify which subreddit the post belongs to.
- This is a binary classification problem.

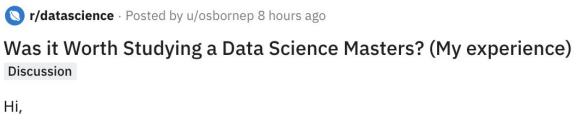
Data

Two Subreddits chosen:

- Jokes
- Data Science







Since completing my Masters in Data Science, I have had a number of people contact me

Data Gathering

- Requests information from APIs, from scraping.
- Number of posts gathered from "Jokes" Subreddit (2496, 9)
- Number of posts gathered from "Data Science" Subreddit (1839, 9)
- Total number of posts (4335, 9)

Data Cleaning & Exploration

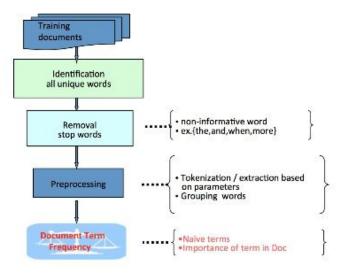
- Data has been explored for nulls, duplicates
- Checked for unbalanced classes(this is binary classification)
- Combined text and titles

CountVectorizer

 NLP tool, that converts a collection of text documents to a matrix of token counts

What is CountVectorizer

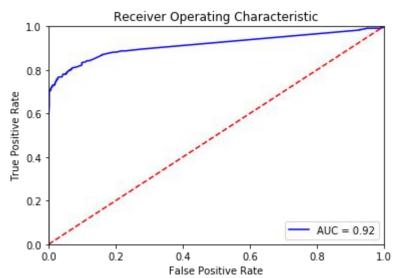
Class in Python Scikit-learn, ML library

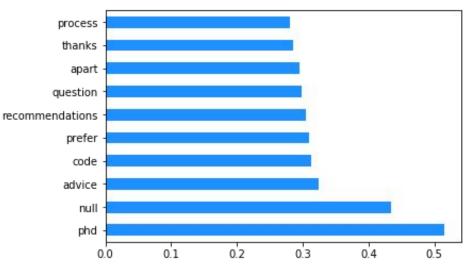


Model Evaluation & Interpretation

Logistic Regression:

Accuracy - 94%

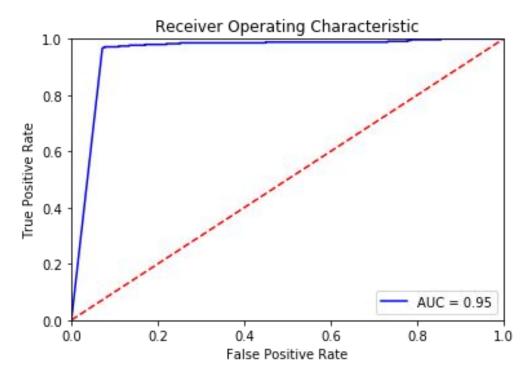




Model Evaluation & Interpretation

Multinomial Naive Bayes classifier:

Accuracy - 96%



Key Takeaways

- Need to consider subreddits that are closely related to get better prediction
- Test with other models
- Explore new features
- More cleaning needed, especially dealing with social media(links, #tags,emojis etc;).