#### Pitchfork Says a Lot, Despite Saying Very Little

A Sentiment Analysis of **Music Reviews** 

# Pitchfork.com



The Italians surrounding me held their breath in communion (save for the drunken few shouting "Criep!"). Suddenly, a rise of whistles and orgasmic cries swept unfittingly through the crowd. The song, "Egyptian Song," was certainly momentous, but wasn't the response more apt for, well, "Creep?" I looked up. I thought it was fireworks. A teardrop of fire shot from space and disappeared behind the church where the syrupy River Arno crawled. Radiohead had the heavens on their side.

At the Drive In **ionship of Command** 





Jet **Shine On** 

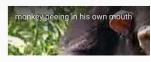
[The following is a partial transcript from the third and final debate between Republican Presidential candidate George W. Bush and ...

Nelly **Country Grammar** 



8.1

NSFW



Hetfield pivots between devastating croons and razor-throated yells like a seasoned "American Idol" contestant. "I'm your dream/I'm

## Pitchfork.com

- Incredibly pretentious.
- Exceptionally nonsensical.
- Still somehow the best music journalism website.

## Objective Statement

#### Primary:

Can a sentiment analysis of Pitchfork's reviews indicate a positive and negative score?

#### Secondary:

Can this sentiment analysis methodology be extended as a general purpose technique?

# Table of Contents

- Data
- Model Building
- Various elements of low-level NLP

# Data - Scraped

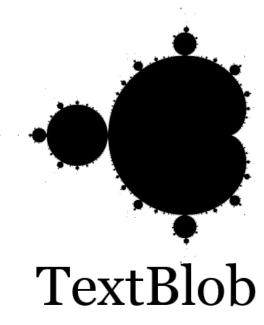
• Review = Abstract + Article

Score

# Model Building

- Simple Model
- TFIDF meets XGBoost
- Low-level NLP

# Simple Model using TextBlob



## TFIDF and XGBoost Classifier

• TFIDF - weighted frequency measurement.

How important is a word to the document?

XGBoost Classifier - easy to work with.

## Low-level NLP - Sentence Tagging

#### THE PARTS OF SPEECH POEM

Every name is called a noun, As field and fountain, street and town. In place of noun the pronoun stands, As he and she can clap their hands. The adjective describes a thing, As magic wand or bridal ring. The verb means action, something done, As read and write and jump and run. How things are done the adverbs tell, As quickly, slowly, badly, well. The preposition shows relation, As in the street or at the station. Conjunctions join, in many ways, Sentences, words, or phrase and phrase. The interjection cries out, "Hark! I need an exclamation mark!"

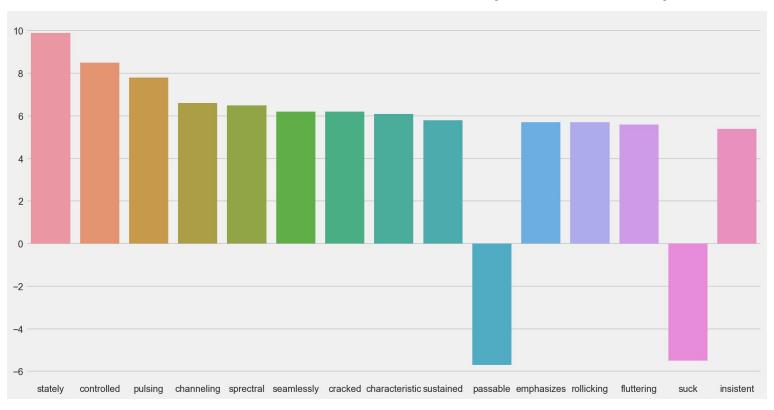
#### Low-level NLP - Stopwords, Tokenization and Frequency

Removing clutter from the documents.

Bag of words model - modifiers and underlying motivation.

Words that appear most frequently as model parameters.

# Which model to use? - Naive Bayes Classifier



#### Which model to use? - More options.

- Multinomial Naive Bayes
- Bernoulli Naive Bayes
- Logistic Regression
- Stochastic Gradient Descent
- Support Vectors Classifier
- Linear Support Vectors Classifier

#### Which model to use? - All of them.

- Motivations
- Vote Classifier -
  - Standard Naive Bayes Classifier
  - Multinomial Naive Bayes
  - Logistic Regression
  - Stochastic Gradient Descent
  - Support Vectors Classifier

# Wrapping it up neatly.

- Pickling models.
- Packaging it all into a function.

## Further Improvements

- Context based feature selection.
- Trying a more diverse range of classifiers.
- Tuning model parameters.

# Questions?