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CS 122 Winter Project Proposal

The Twitter Rating Engine

1) Catchy name for the project/engine
    a) GoodTaste
    b) RoboRater
    c) Something else
    d) We will pick one at some point
2) Goal: Build an automated rating engine based on analysis of tweets
    a) We plan to create a tool where a user can input an item (band, restaurant, movie we aren't sure what specifically yet) and the engine will get all of the recent tweets that talk about that item.
    b) After finding all of the tweets we will design an algorithm that will determine how positive or negative the tweet was.
    c) The ratings will be collected and used to create a final rating returned to the user
3) Proposed sources of data
    a) Primary Data Source: Twitter API[1]
    b) Potential Secondary Source (for restaurants): Instagram API[2]
    c) Data sources for validation:
        i) Restaurants: Yelp API[3]
        ii) Movies: Rotten Tomatoes API[4]
        iii) Weather: Open Weather API[5] or Forecast API[6]
4) New technologies:
    a) Django
    b) Text quantification method
    c) Perhaps the variety of APIs being used can be a 3rd "technology"?
5) Timeline
    a) Project check-in #1 (week 6): Collect tweets related to an inquiry (for example a movie name).
    b) Project check-in #2 (week 8): come up with a method/write code for quantifying a tweet.
    c) Weeks 8-10: Validate ratings based on tweets with information collected from data sources in 3(c). Put together Django interface. If there's time, make rating engine as general as possible.

API Links:

1) Twitter: https://dev.twitter.com/overview/documentation
2) Instagram: https://www.instagram.com/developer/endpoints/media
3) Yelp: https://www.yelp.com/developers/documentation/v2/overview
4) Rotten Tomatoes: http://developer.rottentomatoes.com
5) Open Weather: http://openweathermap.org/api
6) Forecast:https://developer.forecast.io