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Proposal

1. **Problem Significance -** Movies upon release always seem to have the most positive reviews. If you see any commercial for movies on TV they will almost always plaster their 4-5 star reviews with headline-worthy quotes from the reviews all over. These reviews may be enough to sway the common viewer who is on the fence about watching it, believing it may truly be the masterpiece it self-advertises as. However that may not be the case!

2. **Related Work -**
   https://geekflare.com/identify-amazon-fake-reviews/ - "Complete Guide To Identify Fake Reviews on Amazon" - Article providing simple advice for personally eyeing fake reviews and disregarding them when coming to a decision about purchasing a product, can be applied to movie reviews as well. This article also provided online tools for determining review validities.

   https://www.mentalfloss.com/article/645297/david-manning-sony-fake-film-critic - "Remembering David Manning, Sony's Fictional Film Critic" - A more specific article detailing the creation of a fake movie critic. This was different from massive amounts of casual reviews on a website and instead a supposedly professional, more in-depth review that was made to convince the more critical moviegoers.

   https://www.bloomberg.com/news/articles/2021-08-18/amazon-amzn-cracks-down-on-fake-reviews-hitting-chinese-retailers - "Amazon Hits Chinese Sellers With Crackdown on Fake Reviews" - An article describing the crackdown of fake review retailers for Amazon.

3. **My Proposed Activities -**
   The dataset I'll be using is the Stanford Web Data: Amazon Movie Reviews. These reviews span from 1997-2012. Based on my readings of the "Complete Guide To Identify Fake Reviews On Amazon" I will construct an algorithm to scoop up the suspicious amazon movie reviews. Generally some tactics I will use are searching for "generic" words like "good", "amazing", "awesome", etc. that don't really convey any meaning about the movie at all. Then I will sort these by review length, typically the shorter reviews are more likely to be fake. Then I will attempt to check the reviews for grammatical errors, fake reviewers can often be for foreign countries. With a combination of these tactics and maybe others I find I'll give a validity score to a rating and compare it to the "helpfulness" votes the rating got in reality and see if they match.