CSE 523 Machine Learning Project Report Movie Recommender System weekly Report

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Collaborative based Recommendation system:

Task Completed:

- Our content based engine suffers from some severe limitations. It is only capable of suggesting movies which are close to a certain movie.
- That is, it is not capable of capturing tastes and providing recommendations across genres.
- The previous implementation of the content based system has certain limitations for the personal bias and taste which is a major concern for the recommendation system.
- Here, the implementation of a user centered predictor will be implemented from the review and rating provided by the user which they have watched and provided feedback upon.
- The focus for collaborative systems is less on making a recommendation but on estimating the rating of a movie which the user would watch.
- To estimate the rating we are using the validation of 5 folds using the SVD algorithm.

Singular value decomposition (SVD) is a matrix factorization method that generalizes the eigendecomposition of a square matrix $(n \times n)$ to any matrix $(n \times m)$

Task to be performed in upcoming week:

- Implementation of the rating estimator of Collaborative system for the user.
- Making the combination of content and collaborative system which would be the Hybrid recommender which would consider the movie implications and the user specified ratings.

References:

- https://rdrr.io/cran/bcv/man/cv.svd.html
- https://stackoverflow.com/questions/56273351/how-to-validate-test-set-on-trained-svd-model

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