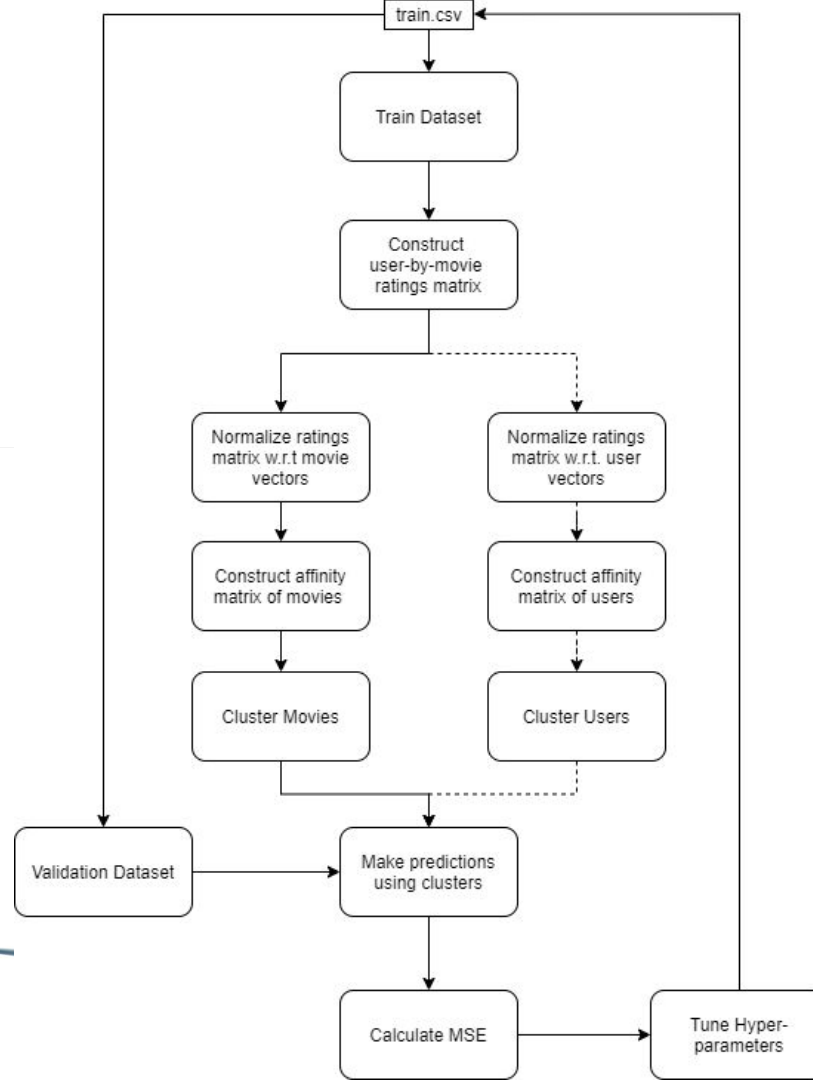# Collaborative Filtering using Spectral Clustering
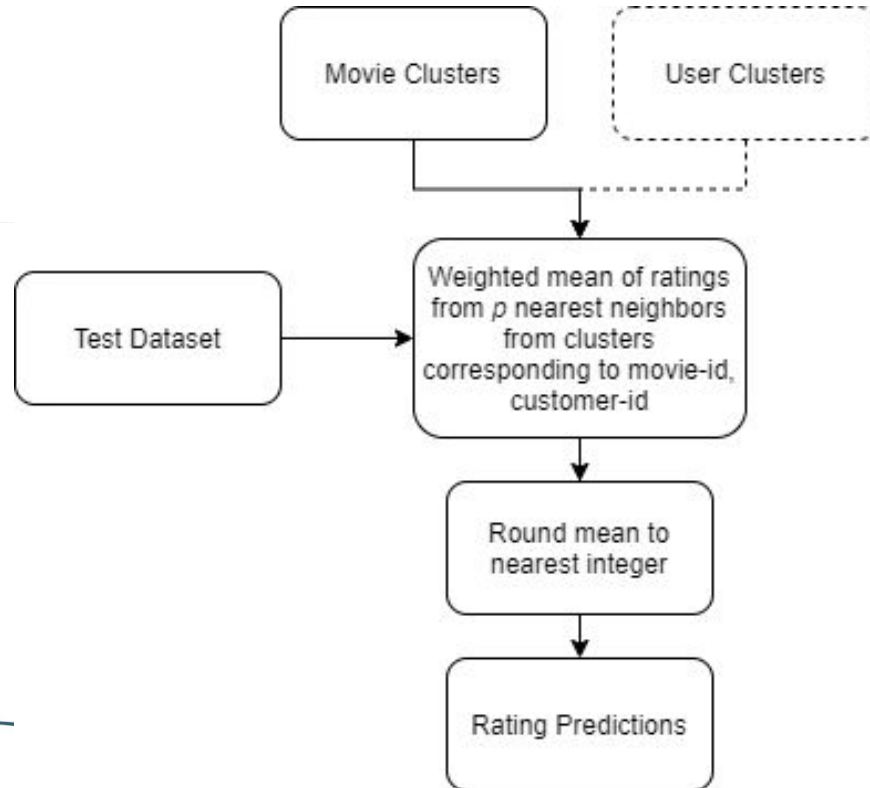
Netflix Rating Prediction

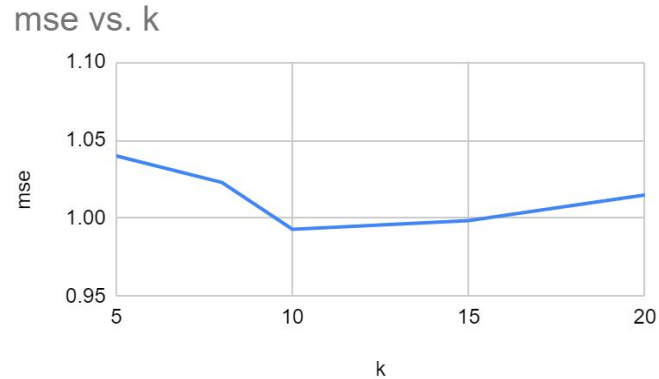Prashanth R. Duggirala

Training Approach:

Making Predictions:

Hyperparameter Tuning:

- Number of clusters (k):

  - The number of clusters was selected empirically based on the size of the clusters, we try to keep the size of clusters fairly balanced.

mse vs. k

Hyperparameter Tuning:

- Number of nearest neighbours (p):

  - Clustering helps massively here because the search space for finding the nearest neighbours is reduced considerably

  - Above decision to maintain the balance in the cluster sizes is mainly because of this reason.

mse vs. p

UCDAVIS