CS536 Final Project
Project Checkpoint
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As mentioned in the project proposal, we intend to use the idea from Campos' paper to establish a hybrid recommender system based on Bayesian network model. Now we have finished implementing the algorithm in this paper and submitted our code online. The model combines content-based and collaborative-filtering approaches for data training and inference. Given an user and an item that hasn't been rated by this user, the system can predict its rating based on the computation result of our model. Now we are testing the model using the MovieLens data. The next step of this project is to explore some improvements on this model, and make some justification of our modification.

One problem we met was how to implement the Bayesian network. We used object programming in Python for creating the different nodes in the network, and used scientific computing package Numpy to accelerate the data training process.

The original network has three layers of nodes. The user layer inherited the information from the item layer. The next step we plan to add another layer which contains the demographic info for the users and explore the model performance.