

User Based CF	0.9961	0.7711
Content KNN	0.9375	0.7263
Hybrid	0.9961	0.7711

Legend:

RMSE: Root Mean Squared Error. Lower values mean better accuracy.
 MAE: Mean Absolute Error. Lower values mean better accuracy.

Using recommender User Based CF

Building recommendation model...
 Computing the cosine similarity matrix...
 Done computing similarity matrix.
 Computing recommendations...

We recommend:
 One Magic Christmas (1985) 5
 Step Into Liquid (2002) 5
 Art of War, The (2000) 5
 Taste of Cherry (Ta'm e guilass) (1997) 5
 King Is Alive, The (2000) 5
 Innocence (2000) 5
 Maelström (2000) 5
 Faust (1926) 5
 Seconds (1966) 5
 Amazing Grace (2006) 5

Using recommender Content KNN

Building recommendation model...
 Computing content-based similarity matrix...
 0 of 9066
 100 of 9066
 200 of 9066
 300 of 9066
 400 of 9066
 500 of 9066

Traceback (most recent call last):

File "D:\HybridRecommendationSystem\HybridTest.py", line 43, in <module>
 evaluator.SampleTopNRecs(ml)

File "D:\HybridRecommendationSystem\Evaluator.py", line 56, in SampleTopNRecs
 algo.GetAlgorithm().fit(trainSet)

File "D:\HybridRecommendationSystem\ContentKNNAlgorithm.py", line 36, in fit
 genreSimilarity = self.computeGenreSimilarity(thisMovieID, otherMovieID, genres)

File "D:\HybridRecommendationSystem\ContentKNNAlgorithm.py", line 52, in
 computeGenreSimilarity
 y = genres2[i]

KeyboardInterrupt

In [10]: 'D:/HybridRecommendationSystem/HybridTest.py' = 'D:/
 HybridRecommendationSystem'
 Reloaded modules: MovieLens, ContentKNNAlgorithm, HybridAlgorithm, Evaluator,

EvaluationData, EvaluatedAlgorithm, RecommenderMetrics

Loading movie ratings...

Computing movie popularity ranks so we can measure novelty later...

Estimating biases using als...

Computing the cosine similarity matrix...

Done computing similarity matrix.

Evaluating User Based CF ...

Evaluating accuracy...

Computing the cosine similarity matrix...

Done computing similarity matrix.

Analysis complete.

Evaluating Content KNN ...

Evaluating accuracy...

Computing content-based similarity matrix...

0 of 8211

100 of 8211

200 of 8211

300 of 8211

400 of 8211

500 of 8211

600 of 8211

700 of 8211

800 of 8211

900 of 8211

1000 of 8211

1100 of 8211

1200 of 8211

1300 of 8211

1400 of 8211

1500 of 8211

1600 of 8211

1700 of 8211

1800 of 8211

1900 of 8211

2000 of 8211

2100 of 8211

2200 of 8211

2300 of 8211

2400 of 8211

2500 of 8211

2600 of 8211

2700 of 8211

2800 of 8211

2900 of 8211

3000 of 8211

3100 of 8211

3200 of 8211

3300 of 8211

3400 of 8211

3500 of 8211

3600 of 8211

3700 of 8211

3800 of 8211

3900 of 8211

4000 of 8211

4100 of 8211

4200 of 8211

4300 of 8211

4400 of 8211
4500 of 8211
4600 of 8211
4700 of 8211
4800 of 8211
4900 of 8211
5000 of 8211
5100 of 8211
5200 of 8211
5300 of 8211
5400 of 8211
5500 of 8211
5600 of 8211
5700 of 8211
5800 of 8211
5900 of 8211
6000 of 8211
6100 of 8211
6200 of 8211
6300 of 8211
6400 of 8211
6500 of 8211
6600 of 8211
6700 of 8211
6800 of 8211
6900 of 8211
7000 of 8211
7100 of 8211
7200 of 8211
7300 of 8211
7400 of 8211
7500 of 8211
7600 of 8211
7700 of 8211
7800 of 8211
7900 of 8211
8000 of 8211
8100 of 8211
8200 of 8211
...done.
Analysis complete.
Evaluating Hybrid ...
Evaluating accuracy...
Computing the cosine similarity matrix...
Done computing similarity matrix.
Computing content-based similarity matrix...
0 of 8211
100 of 8211
200 of 8211
300 of 8211
400 of 8211
500 of 8211
600 of 8211
700 of 8211
800 of 8211
900 of 8211
1000 of 8211
1100 of 8211
1200 of 8211

1300	of	8211
1400	of	8211
1500	of	8211
1600	of	8211
1700	of	8211
1800	of	8211
1900	of	8211
2000	of	8211
2100	of	8211
2200	of	8211
2300	of	8211
2400	of	8211
2500	of	8211
2600	of	8211
2700	of	8211
2800	of	8211
2900	of	8211
3000	of	8211
3100	of	8211
3200	of	8211
3300	of	8211
3400	of	8211
3500	of	8211
3600	of	8211
3700	of	8211
3800	of	8211
3900	of	8211
4000	of	8211
4100	of	8211
4200	of	8211
4300	of	8211
4400	of	8211
4500	of	8211
4600	of	8211
4700	of	8211
4800	of	8211
4900	of	8211
5000	of	8211
5100	of	8211
5200	of	8211
5300	of	8211
5400	of	8211
5500	of	8211
5600	of	8211
5700	of	8211
5800	of	8211
5900	of	8211
6000	of	8211
6100	of	8211
6200	of	8211
6300	of	8211
6400	of	8211
6500	of	8211
6600	of	8211
6700	of	8211
6800	of	8211
6900	of	8211
7000	of	8211
7100	of	8211

7200 of 8211
 7300 of 8211
 7400 of 8211
 7500 of 8211
 7600 of 8211
 7700 of 8211
 7800 of 8211
 7900 of 8211
 8000 of 8211
 8100 of 8211
 8200 of 8211
 ...done.
 Analysis complete.

Algorithm	RMSE	MAE
User Based CF	0.9961	0.7711
Content KNN	0.9375	0.7263
Hybrid	0.9050	0.7043

Legend:

RMSE: Root Mean Squared Error. Lower values mean better accuracy.
 MAE: Mean Absolute Error. Lower values mean better accuracy.

Using recommender User Based CF

Building recommendation model...
 Computing the cosine similarity matrix...
 Done computing similarity matrix.
 Computing recommendations...

We recommend:
 One Magic Christmas (1985) 5
 Step Into Liquid (2002) 5
 Art of War, The (2000) 5
 Taste of Cherry (Ta'm e guilass) (1997) 5
 King Is Alive, The (2000) 5
 Innocence (2000) 5
 Maelström (2000) 5
 Faust (1926) 5
 Seconds (1966) 5
 Amazing Grace (2006) 5

Using recommender Content KNN

Building recommendation model...
 Computing content-based similarity matrix...
 0 of 9066
 100 of 9066
 200 of 9066
 300 of 9066
 400 of 9066
 500 of 9066
 600 of 9066
 700 of 9066
 800 of 9066
 900 of 9066
 1000 of 9066

1100	of	9066
1200	of	9066
1300	of	9066
1400	of	9066
1500	of	9066
1600	of	9066
1700	of	9066
1800	of	9066
1900	of	9066
2000	of	9066
2100	of	9066
2200	of	9066
2300	of	9066
2400	of	9066
2500	of	9066
2600	of	9066
2700	of	9066
2800	of	9066
2900	of	9066
3000	of	9066
3100	of	9066
3200	of	9066
3300	of	9066
3400	of	9066
3500	of	9066
3600	of	9066
3700	of	9066
3800	of	9066
3900	of	9066
4000	of	9066
4100	of	9066
4200	of	9066
4300	of	9066
4400	of	9066
4500	of	9066
4600	of	9066
4700	of	9066
4800	of	9066
4900	of	9066
5000	of	9066
5100	of	9066
5200	of	9066
5300	of	9066
5400	of	9066
5500	of	9066
5600	of	9066
5700	of	9066
5800	of	9066
5900	of	9066
6000	of	9066
6100	of	9066
6200	of	9066
6300	of	9066
6400	of	9066
6500	of	9066
6600	of	9066
6700	of	9066
6800	of	9066
6900	of	9066

7000 of 9066
7100 of 9066
7200 of 9066
7300 of 9066
7400 of 9066
7500 of 9066
7600 of 9066
7700 of 9066
7800 of 9066
7900 of 9066
8000 of 9066
8100 of 9066
8200 of 9066
8300 of 9066
8400 of 9066
8500 of 9066
8600 of 9066
8700 of 9066
8800 of 9066
8900 of 9066
9000 of 9066

...done.

Computing recommendations...

We recommend:

Presidio, The (1988) 3.841314676872932
Femme Nikita, La (Nikita) (1990) 3.839613347087336
Wyatt Earp (1994) 3.8125061475551796
Shooter, The (1997) 3.8125061475551796
Bad Girls (1994) 3.8125061475551796
The Hateful Eight (2015) 3.812506147555179
True Grit (2010) 3.812506147555179
Open Range (2003) 3.812506147555179
Big Easy, The (1987) 3.7835412549266985
Point Break (1991) 3.764158410102279

Using recommender Hybrid

Building recommendation model...

Computing the cosine similarity matrix...

Done computing similarity matrix.

Computing content-based similarity matrix...

0 of 9066
100 of 9066
200 of 9066
300 of 9066
400 of 9066
500 of 9066
600 of 9066
700 of 9066
800 of 9066
900 of 9066
1000 of 9066
1100 of 9066
1200 of 9066
1300 of 9066
1400 of 9066
1500 of 9066
1600 of 9066

1700	of	9066
1800	of	9066
1900	of	9066
2000	of	9066
2100	of	9066
2200	of	9066
2300	of	9066
2400	of	9066
2500	of	9066
2600	of	9066
2700	of	9066
2800	of	9066
2900	of	9066
3000	of	9066
3100	of	9066
3200	of	9066
3300	of	9066
3400	of	9066
3500	of	9066
3600	of	9066
3700	of	9066
3800	of	9066
3900	of	9066
4000	of	9066
4100	of	9066
4200	of	9066
4300	of	9066
4400	of	9066
4500	of	9066
4600	of	9066
4700	of	9066
4800	of	9066
4900	of	9066
5000	of	9066
5100	of	9066
5200	of	9066
5300	of	9066
5400	of	9066
5500	of	9066
5600	of	9066
5700	of	9066
5800	of	9066
5900	of	9066
6000	of	9066
6100	of	9066
6200	of	9066
6300	of	9066
6400	of	9066
6500	of	9066
6600	of	9066
6700	of	9066
6800	of	9066
6900	of	9066
7000	of	9066
7100	of	9066
7200	of	9066
7300	of	9066
7400	of	9066
7500	of	9066

7600 of 9066
7700 of 9066
7800 of 9066
7900 of 9066
8000 of 9066
8100 of 9066
8200 of 9066
8300 of 9066
8400 of 9066
8500 of 9066
8600 of 9066
8700 of 9066
8800 of 9066
8900 of 9066
9000 of 9066

...done.

Computing recommendations...

We recommend:

Package, The (1989) 4.36440300693213
Borgman (2013) 4.320175613406169
Supercop 2 (Project S) (Chao ji ji hua) (1993) 4.319262696225495
Art of War, The (2000) 4.313658047849978
Enforcer, The (1976) 4.309940082222905
Two Escobars, The (2010) 4.29794373998277
Death on the Staircase (Soupçons) (2004) 4.29794373998277
Clockstoppers (2002) 4.287881364745346
Seconds (1966) 4.286498320295509
Gaslight (1940) 4.277619083439273

In [11]: