

1 Introduction

Use csv with citation from 2019 only (except SimpleX, but the result between using 2019 only or all years are similar).
lr=0.01

2 SimpleX

Simple and Strong Baseline for Collaborative Filtering.

A single epoch can take up to more than six hours, but the results are great:

- recall@10 : 0.8738
- mrr@10 : 0.9462
- ndcg@10 : 0.8967
- hit@10 : 0.9635
- precision@10 : 0.1806

3 LightGCN

Graph Convolution Network for Recommendation (collaborative filtering)

- recall@10 : 0.9893
- mrr@10 : 0.8757
- ndcg@10 : 0.9014
- hit@10 : 0.9927
- precision@10 : 0.1231

4 ItemKNN

Item-based top-N recommendation algorithms.

Just one epoch (KNN) in 5 minutes:

- recall@10 : 0.2229
- mrr@10 : 0.173
- ndcg@10 : 0.173
- hit@10 : 0.2312
- precision@10 : 0.0461

5 Pop

Recommend the most popular items to users.

- recall@10 : 0.0
- mrr@10 : 0.0001
- ndcg@10 : 0.0001
- hit@10 : 0.0002
- precision@10 : 0.0

6 FISM

Factored Item Similarity Models for Top-N Recommender Systems

- recall@10 : 0.0007
- mrr@10 : 0.0003
- ndcg@10 : 0.0003
- hit@10 : 0.0009
- precision@10 : 0.0009

7 NAIS

Item-based collaborative filtering

- recall@10 : 0.987
- mrr@10 : 0.923
- ndcg@10 : 0.9364
- hit@10 : 0.9921
- precision@10 : 0.1239