Recomendation System

Method

- Content-Based
- Collaborative Filtering (3 bài báo)
  - Item-based
  - User-based
  - Collaborative Denoising Auto Encoder (CDAE)
  - CKE
  - Trust-base
- Neural network
  - single deep model (trên 50 bài báo)
  - Deep composite model (10 bài báo)
  - Deep Learning + Traditional RS (13 bài báo)
  - only deep learning
- Random Forest (1 bài báo)
- Matrix Factorization (2 bài báo)
- Context Aware (1 bài báo)
- Hybrid-based (2 bài báo)
- Knowledge-based (1)
- Demographic

Dataset available

- (8) MovieLens
  - Movielen 10M — 2016-Collaborative Denoising Auto-Encoders for Top-N Recommender Systems
  - 2018 - The Use of Machine Learning Algorithms in Recommender Systems: A Systematic Review
  - 2007-Collaborative Filtering Recommender Systems
  - 2005-Trust in Recommender Systems
  - MovieLens-1M8, consists of 1M ratings with 6,040 users and 3,706 movies. — 2016-Collaborative Knowledge Base Embedding for Recommender Systems
  - 2016-Three-way recommender systems based on random forests
  - 2017-Neural Collaborative Filtering
  - 2016-Hybrid Recommender System based on Autoencoders
- (2) Netflit Film
- (2) Yelp
  - 2016-Collaborative Denoising Auto-Encoders for Top-N Recommender Systems
  - 2017-Fast Matrix Factorization for Online Recommendation with Implicit Feedback
- (1) Amazon review
- (1) Pinterest review
- (1) The Internet Movie Database
- (1) Douban Movie
- (1) Jester
- (1) Book Crossing
- (2) entree Chicago
  - This data contains a record of user interactions with the Entree Chicago restaurant recommendation system : 50672 instances — 2002-Hybrid Recommender Systems: Survey and Experiments
  - 2000-Knowledge-based recommender systems
- (1) cieulike
  - citeulike-a contains 5551 users and 16980 items
  - citeulike-t, the numbers are 7947 and 25975 — 2015-Collaborative Deep Learning for Recommender Systems
- (1) intentbooks
  - 92,564 users, 18,475 books, and 897,871 user-book interests — 2016-Collaborative Knowledge Base Embedding for Recommender Systems
- (1) coursera and EdX

Evaluate

- Precision (7)
  - 2016-Collaborative Denoising Auto-Encoders for Top-N Recommender Systems
  - 2007-Collaborative Filtering Recommender Systems
  - 2000-Knowledge-based recommender systems — entree Chicago — 71%
  - 2015-A Multi-View Deep Learning Approach for Cross Domain User Modeling in Recommendation Systems
  - 2011-Collaborative user modeling with user-generated tags for social recommender systems
  - 2012-Content-Based Movie Recommendation Using Different Feature Sets
  - 1998-Recommendation as Classification: Using Social and Content-Based Information in Recommendation
- Recall (5)
  - 2016-Collaborative Denoising Auto-Encoders for Top-N Recommender Systems
  - 2015-Collaborative Deep Learning for Recommender Systems
    - citeulike-a — 59.43%
    - citeulike-t — 54.48%
    - Netflix — 70.42
    - Recall@300
  - 2012-Content-Based Movie Recommendation Using Different Feature Sets
  - 1998-Recommendation as Classification: Using Social and Content-Based Information in Recommendation
  - 2007-A Recommender System for On-line Course Enrolment: An Initial Study
- Ranking Accuracy (1)
- Click through rate (1)
- Root mean square error (2)
  - 2009-MATRIX FACTORIZATION TECHNIQUES FOR RECOMMENDER SYSTEMS — 9.46%
  - 2016-Hybrid Recommender System based on Autoencoders
- Binary cross-entropy (1)
- T-test, Lavene's test (1)
- Hit ratio (2)
- Normalized Discounted Cumulative Gain (2)
- Mean Reciprosal rank (1)
- F1-measure (1)
- mAP (4)
  - 2016-Collaborative Denoising Auto-Encoders for Top-N Recommender Systems
  - 2014-Forum Thread Recommendation for Massive Open Online Courses — coursera and EdX
    - MAP@1:0.198
    - MAP@3:0.323
    - MAP@5:0.376
  - 2015-Collaborative Deep Learning for Recommender Systems
    - citeulike-a — 0.0514
    - citeulike-t — 0.0453
    - Netflix — 0.0312
  - 2016-Collaborative Knowledge Base Embedding for Recommender Systems
- MAE (1)
- Mean error rate (1)
  - 2005-Trust in Recommender Systems — 0.68
- Relative benifit (1)
- ARC (1)
- AUC (1)
  - 2016-Wide & Deep Learning for Recommender Systems — 0.728
- Average Cost (1)