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http://gitorious.org/mymedialite

Contact

We would like to get feedback (suggestions, bug reports, etc.) about MyMediaLite

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Acknowledgements

MyMediaLite was developed by Zeno Gantner, Steffen Rendle, and Christoph Freudenthaler at University of Hildesheim.

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MyMediaLite – Recommender System Algorithm Library

Zeno Gantner, University of Hildesheim

Pre-release at the ACM Recommender Systems in Barcelona
Sorry – no fancy flyers yet ;-)

MyMediaLite is a lightweight, multi-purpose library of recommender system algorithms. It addresses the two most common scenarios in collaborative filtering, rating prediction (e.g. on a scale of 1 to 5 stars) and item prediction from implicit feedback (e.g. from clicks or purchase actions).

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Features

- dozens of different recommender engines
- collaborative and attribute-based methods
- evaluation routines for rating and item prediction: MAE, RMSE, AUC, prec@N, NDCG
- simple text-based input format
- Written in C#, works on Linux, Windows, Mac OS X (using Mono)
- Free/Open Source Software, distributed under the terms of the GNU General Public License (GPL)

For Researchers

- don't waste time implementing methods if you really want to study other aspects of recommender systems
- use the standard algorithms as baseline methods in benchmarks
- use MyMediaLite's infrastructure to implement your own methods

For Developers

- Add recommender system technologies to your software.

For Students

- See how typical recommender system methods are implement.
- Use MyMediaLite as a basis for you school projects.

Recommendation Tasks Addressed

Rating Prediction

TODO: gfx

Item Recommendation from Implicit Feedback

positive-only

TODO: gfx

Implemented Methods

Rating Prediction

- averages: global, user, item
- linear baseline method by Koren and Bell
- k-Nearest Neighbor (kNN):
  - based on user or item similarities
  - using collaborative or attribute (content) data
  - different similarity measures
- (Biased) matrix factorization

Item Prediction

- Random
- Most Popular Item
- Singular Value Decomposition (SVD)
- k-Nearest Neighbor (kNN):
  - based on user or item similarities
  - using collaborative or attribute (content) data
- Weighted Regularized Matrix Factorization (WR-MF)
- Matrix Factorization Optimized for Bayesian Personalized Ranking (BPR-MF)