

Problem Set 12, Dec 5, 2025

(Matrix Factorizations and Recommender Systems)

Goals. The goal of this exercise is to

- Build a recommender system.
- Learn to evaluate its performance.
- Implement and understand matrix factorization using SGD.
- Implement and understand the alternating least-squares (ALS) algorithm.

Setup, data and sample code. Obtain the folder `labs/ex12` of the course github repository

github.com/epfml/ML_course/tree/main/labs/ex12

You can also the notebook in Google Colab:

colab.research.google.com/github/epfml/ML_course/tree/main/labs/ex12/template/ex12.ipynb

1 Notebook

The notebook guides you through data preparation, the design of baselines, and the implementation and training of a Matrix Factorization algorithm for recommendation.