Movie Recommender System

Asmae Tounsi, Lukas Moser, Deepak Karkala
Ecole Polytechnique Federale de Lausanne, Switzerland

Abstract—

I. INTRODUCTION

II. METHODOLOGY

A. Brief description of data

B. Baseline methods

1) Global Mean:
2) User Mean:
3) Item Mean:

C. Pre-processing

1) Pre processing method 1:
2) Pre processing method 2:

D. Models and Methods

1) Matrix factorisation with SGD:
2) Matrix factorisation with ALS:
3) Some other method:

E. Results

1) Baseline performance:
2) Matrix factorisation with SGD: (Plot cross validation results)
- Number of features: K
- Regularisation parameter: λ_{user}
- Regularisation parameter: λ_{item}
- Learning rate γ

3) Matrix factorisation with ALS: (Plot cross validation results)
- Number of features: K
- Regularisation parameter: λ_{user}
- Regularisation parameter: λ_{item}

4) Results with other method:
5) Compare results for SGD, ALS, other method:

III. DISCUSSION

IV. SUMMARY