

PRESENTATION OUTLINE:
A Parallel Recommender System Using a Collaborative
Filtering Algorithm for Movie Recommender System

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1 Introduction

- Title of the presentation and self-introduction

2 Types of Recommendation Systems

- Collaborative Filtering [1]
- Content-Based Filtering [2]

3 Literature Review

- Similarity Computation –
 - i Cosine Vector (CV) Similarity [3]
 - ii Pearson Correlation (PC) Similarity [4] [5]
 - iii JacRA Similarity [6]
 - iv Spearman Correlation (SC) [7]
- Rating Prediction –
 - i Weighted Average (WA) [8]
 - ii Mean-Centering (MC) [9] [10]
 - iii Z-Score (ZS) [11]

4 Spark Framework

- Hadoop vs Apache [12]
- The task scheduling procedure in Spark [13]

5 Methodology

- Algorithms that we have used –
 - i k-nearest neighbors (KNN) Algorithm [14]
 - ii Alternating Least Square (ALS) [15]
 - iii Linear Regression Analysis [16]
- Comparison between our dataset vs the paper we followed [13]
- Methodology for MovieLens-100k Dataset
- Methodology for Netflix-6.2M Dataset

6 Experimental Results

- MovieLens-100k & Netflix-6.2M Data Statistics
- Movie Recommender System using KNN Algorithm :: MovieLens-100k
- Movie Recommender System using ALS Algorithm :: MovieLens-100k
- Movie Recommender System using ALS Algorithm :: Netflix-6.2M
- Comparison Between Netflix-6.2M & ML-100K Datasets ALS Method
- Executor Summary of Two Datasets

7 Ganglia Cluster Report

- Ganglia Cluster Report :: MovieLens-100k
- Ganglia Cluster Report :: Netflix-6.2M
- MovieLens and Netflix Clusters Configurations - usage Overall

8 Conclusion

- Limitations & future work
- Discussion

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