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Machine Learning with Python-From Linear Models to Deep Learning

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2. Introduction

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Introduction

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So today we will talk about recommender systems.

I'm sure that all of you have heard about Netflix's challenge where the goal was to be able to predict which movie the user would like to watch.

So this type of problem is called recommender problems.

Video

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(Optional) Why Not Regression?

0 points possible (ungraded)

According to the video, which of the following are reasons not to use a regression approach to the ranking prediction problem?

☐ Predicting the ranking a user would give on a movie is a classification task

☒ We might not know all the important features for the prediction ✓

☒ Usually, users have not ranked enough movies to predict the user's future movie rankings with regression ✓

☐ Different users might have very different opinions about movies

Solution:

Let's get ourselves in the shoes of Netflix, as the professor mentioned. We want to recommend movies users would like. While our goal is to predict the ranking a user would give to a not-yet-ranked movie, Netflix users usually do not rank enough movies to have a working regression based on data. Moreover, as mentioned in the video, manually selecting the features for the movies might not be trivial.

Submit

You have used 0 of 2 attempts

i Answers are displayed within the problem

(Optional) Recommender Systems Motivation

0 points possible (ungraded)

Let us assume that we measure the similarity between two users by the rankings that they gave to movies that both of them have already watched. What information will a recommender system (as described in the video) directly use in order to predict the ranking of a user to a specific movie?

☒ rankings of other users to other movies and to the examined movie ✓

☒ rankings that the user gave to other movies ✓

☐ the category of the specific movie

☐ average rankings (from all users) for movies with the same director

Solution:

The direction we rely on is to **find users similar to a given user** and use their information in predicting the rankings a user would give to movies.

Submit

You have used 0 of 2 attempts

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So far, whenever a question admitted more than one answer and it was expected to select all possible correct answers to that question,...

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