

Moonactive DS Home Assignment

Attached are two CSV files: a train set (train_home_assignment.csv) and a test set (test_home_assignment.csv).

Prediction task

We are interested in predicting the future income from a user.

1. Please create a prediction model, aiming to predict the target variable ("org price usd following 30 days"). Use the train set for training a model, aiming to minimize RMSE of predictions over the test set.
2. What are the three most important features that contributed to the prediction?

Note: the following columns are related to the next task, and should not be used in the current task: "treatment", "org price usd following 30 days after impact".

Recommendation task

We are interested in increasing the income from users. For that, we ran a randomized experiment where the population was given either a 10\$ offer or 2\$ offer (see the "treatment" column), aiming to learn what offer should be given to a user. The experiment yielded a target variable named "org price usd following 30 days after impact", reflecting the result of the experiment in terms of income.

1. For each user in the test data, set the treatment (either 10 or 2) that you believe would maximize the target variable (add a new column for that)
2. What are the three most important features that contributed to the decision to give users a specific treatment?

Please share the full code (analysis, algorithm) and explanatory comments of your solutions for the above tasks.

Please include a requirements.txt file along with the code submission. This file should list all the external libraries and dependencies required to run the code.