

Homework 3

Graph Neural Networks Course

1 Task 1. Designing a Recommendation System (6 points)

For this task, you are suggested to explore the dataset

<https://cseweb.ucsd.edu/~jmcauley/datasets.html#twitch>

This dataset contains user data from the Twitch streaming platform. For each user, there are records of the streams they watched, including timestamps for the start and end of each viewing session. Your task is to develop a concept for a recommendation system that predicts which streams a specific user will find interesting.

Describe the approach you plan to use, the quality metrics that will help you evaluate your proposed solution, how the dataset should be split, and potential issues that may arise with the data and training process. Justify your choice of architecture/solution and discuss its advantages and disadvantages.

If a non-neural network solution is chosen, the maximum score for this task is 4 points.

Bonus 5 points. Conduct a detailed EDA (exploratory data analysis) of the dataset.

2 Task 2. Implementation. (9 points)

Implement your proposed solution.

If in the first task your solution was neural network-based, you may still implement an alternative solution at this stage, providing its description.