

This class project involves machine learning on graphs. In particular, you are asked to predict characteristics of nodes, edges or graphs based on the data and the model used in project 2. In particular:

1. Explain why predicting the characteristic of interest may be of interest for the application under study
2. Consider hand-crafted (hand-engineered) features
3. Also consider feature learning (either applying *node2vec* or *graph2vec*)
4. Apply a machine learning technique to predict the characteristic using the set of features

Report

Make sure the report includes the following sections.

1. An introduction: a description of why the selected characteristic is of interest.
2. Results: evaluate the performance of your prediction (use ROC curves; any other measure is also welcome)
 - a. How does the machine learning technique perform on the data?
 - b. How does it perform on model?
 - c. Which type of feature were more important for prediction?
3. Conclusions: Present a summary that highlights the major points of your work.

Make sure your final report is not too long, but concise. Its length should not exceed 4 pages in double column. Oral presentations will be 15 minutes long (5 minutes for questions).

Grading

Report (your response to the items listed above) is worth 80%

Oral presentation - 20%