Open Graph Benchmark project

Description:

- Choose one dataset from <u>OGB</u>.
- Implement your own GNN and compare your results with those reported in the leaderboards (we do not require your algorithm to be the first on the leaderboard).
- Suppose the student decides for the <u>arXiv dataset</u>. Implement your own algorithm, and compare your test and validation accuracy with those on the <u>leaderboard</u>.
- If you like, follow the <u>instructions</u> on OGB to upload your own model (optional).

Notes:

• Reference: <u>Dataset</u>, <u>Tutorials</u>.

• Contact: Antonio Longa.

• Can be selected multiple times.

Notes regarding the delivery and the evaluation:

- The student will be asked to realize a project concerning one or more of the topics seen during the course and write a short report. The exam will consist of the evaluation of the project (50%) and the discussion of the report and the topics behind it (50%).
- After having completed the project, prepare a report summarizing the methodology used, the work done, and the results obtained → do an introduction to the problem, analyze the state of the art, discuss the experiments and the analysis I made, and report the obtained results (the report is free-form, the typical length would be somewhere between five and ten pages depending on the complexity of the project and the amount of results to present).
- Better to send preliminary versions of the report for feedback. Make sure to get some feedback to figure out whether your project can be considered complete (in case the project per-se does not involve interaction with any of them) before submitting it for final evaluation.
- After completing the assignment send it via email to Andrea Passerini:
 - o Subject: ADVML2022
 - Attachment: name surname.zip containing:
 - the report (named report.pdf)
 - the code you wrote
 - the requirements needed to run the code
- Then, the project is discussed asynchronously (with respect to the session) as soon
 as it is completed, we need to arrange the discussion on the project with Passerini by
 email (discussion in person about what was done for the project and related topics).