

Project Assignment : Final group report

Due date: December 20, 2021

Provide a write-up of your research in the form of an academic paper that could be submitted to a conference on data mining/machine learning. Your paper should be self-contained. Everyone who has read the assigned reading materials from the course should be able to read and understand your paper. That means that in your paper you can be brief about machine learning methods that are described in the assigned readings, but that you need to provide sufficient details about the problem domain, the dataset, as well as about any other machine learning methods that you used that were not covered in class. The reasons for this are:

- (1) a description of the problem domain and the dataset will allow to share your paper with interested parties who have not taken the course but who have general knowledge of machine learning;
- (2) a description of machine learning methods not covered in class will allow us to evaluate whether you truly understood those methods instead of treating them as a black box.

Your paper can for instance be divided into sections as follows (but if another structure works better for you, don't feel restricted to the one below):

- Introduction: a description of the problem (profiling of Facebook users), what the goals of the study are, and a very brief description of the results.
- Methodology: a brief description of the machine learning methods used.
- Dataset and metrics: a description of the datasets and the evaluation measures used.
- Results: an overview of the results you obtained by applying the methods from section 2 to the dataset from section 3 using the metrics from section 3. In addition to reporting numbers, your analysis of the results should also contain your insights into the results, i.e. why did a particular method work well/did not work well?
- Conclusion and future work: briefly summarize your results and list opportunities for future research that seem promising to you but for which you did not find the time within this quarter.

Formatting guidelines: Your report should be no longer than 10 pages in length (plus references) for pairs or 13 pages (plus references) for teams of three.

Grading Scheme: Project Report (29%)

- Clarity/Relevance of problem statement and description of approach: 10%
- Discussion of relationship to previous work and references: 4%
- Design and execution of experiments: 10%
- Figures/Tables/Writing: easily readable, properly labeled, informative: 5%