Project evaluation reference sheet

Use this reference sheet when evaluating the projects to help you write your critical review. The same reference sheet will be used for the final grading.

	Not applicable	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Data selection and preparation						
The scientific question is well formulated						
The dataset has the potential to answer the question						
The data is large enough						
The data imbalance is handled (if adequate)						
Non-assigned values are handled						
The data is well-described (descriptive statistics, distributions...)						
Outliers are handled (if adequate) appropriately						
Feature conversion make sense for the data/problem at hand						
Visualisation of the data shows its key characteristics						
Technical choices						
The task is well-identified (classification, anomaly detection...)						
The chosen algorithms are suited to the task						
Hyperparameter setting is clear and justified						
The implementation runs in a reasonable time (i.e. scales)						
The hypotheses of the model are respected						
Evaluation						
The right evaluation metrics for this context are used (F1-score, RMSE...)						
The proposed method(s) are compared to baselines						
The reported scores are good compared to the baselines						
The evaluation gives a good picture of the model's performance						
The train/validation/test separation principles are used						
The results help answer the initial question						
Limitations						
The authors describe well the limits of their approach						
The authors outline relevant perspectives						
Report						
The report fits within the ascribed limits (10 pages of content)						
There is a paragraph detailing the contributions of each group member						
The report is well-written and easy to follow						
The formalism is rigorous and correct						
Extras						
The code is available and easy to run / well documented						
The dataset was not pre-existing						
Algorithm(s) were reimplemented from scratch						
...and are more efficient than "official" librairies						

Peer reviewing

A key part of the project is that you will have time to get feedback from your peers, and improve your project before the final submission. Each student will have one project to review, and so each project will receive four reviews.

While writing your review, keep in mind that someone familiar with data science should be able to get a critical idea of the project's goals, achievements and limitations, even if they are not specialists of the specific topic. You can however assume that anyone reading the review will be familiar with the course material, and, in general, a graduate-level knowledge of computer science.

The review should also serve as a basis for self-improvement for the project's authors. Please remain objective and constructive in your criticism.

A review should contain :

- A short summary of the project : the selected data, the goal, and the main results;
- The three strongest points;
- The most important (up to three) sources of improvement;
- Free text explaining your argumented thoughts about the project;
- Ways to make the report better written (optional).