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FINAL PROJECT — Introduction to Machine Learning

1 Requirements

- Required for 574 (15%) and optional for 474 (10% bonus)
- This is an individual project, no teams allowed
- The final project report is
  - following the same typeset requirements as specified for the homework assignments
  - restricted to 10-page (including text and figures, excluding source code and references)
  - minimum font-size 10 pt
- Please respect the deadline!

2 Important Dates

- **April 16th**: Project title and abstract (less than 100 words, submit the pdf file on Canvas (an assignment will be announced soon)).
- **May 2nd**: Final project submission (see requirements above, submit the pdf file on Canvas (an assignment will be announced soon)).

3 Project Ideas & Examples

- Pick an open-source data set (e.g., Kaggle dataset), and solve the problem with the Machine Learning techniques introduced in this lecture.
- Pick a problem in your research field or major of study, solve it with the Machine Learning techniques introduced in this lecture.
- A reflection of a research paper on related topics to this course (including paper review, code re-implementation, and results reproduction, if applicable).

4 Grading Criterion

- Abstract submission (25 %): you either submit it on-time and get the 25 % of total points, or you don't get any. The "quality" of the abstract is not graded, but I may give useful feedback based on your suggested ideas and presented plan.
- Completeness (20 %): you are expected to "finish" a complete report that at least addresses the following questions:
  1. (Problem Formulation) What is the problem you (or the paper you have your reflections on) are trying to address? Is it a ML problem? What type of ML problem does it belong to?
  2. (Main Method) Details of your solution and technical implementation. This description may include some equations and programs (programs can be listed as appendix and are not counted towards the 10-page limit).

3. (Results Discussions) What are your results? This can be reflected as experiment outcomes, figures, descriptions, and related discussions.
4. (References) Please list necessary resources you have used in this project, or is related to your project, including but not limited to open-source code repository, publications, and blog posts.

- Clarity (25 %): You are expected to be *rigorous*, *clear*, and *precise* about about the above points and others presented in your report.
- Correctness (30 %): Your report should have correct descriptions and results. If applicable, your project should formulate the problem correctly, and use the correct ML technique to solve the problem.

The above perspective is not simply a check list. Covering every mentioned items will get you some points as a lower bound, but it is the quality of each perspective that determines your final score (i.e., the upper bound).

Also the 10-page limit is only a limit. Writing more words will not be appreciated if the above criteria are not appropriately reflected.

Submitted by Bowen Weng on .