**Project: Guidelines and Grading Overview**

**Machine Learning Project (to be submitted Nov 30, 2019 at MyLS)**

In this machine learning project, prior to completing the following  **Project**, you will leverage what you've learned throughout the course to author a proposal for solving a problem of your choice by applying machine learning algorithms and techniques. Your project should encompass eight key points:

* The project's **domain background** : the field of research where the project is derived;
* A **problem statement** : a problem being investigated for which a solution will be defined;
* The **datasets and inputs** : data or inputs being used for the problem; elaborations on data cleaning; preparation and exploration to be defined;
* A **solution statement** : a the solution proposed for the problem given;
* A **benchmark/baseline model** : some simple/baseline or historical model or result to compare your defined solution (generated using any other (advanced) machine learning approach) to;
* A set of **evaluation metrics** : functional representations for how the solution can be measured;
* An outline of the **project design** : how the solution will be developed and results obtained.
* A **bibliography** : complete references should be provided

**Components of Project (in the final submission, to be submitted Nov 30, 2019 at MyLS and final presentations on Dec 2 and 4, 2019 in/after class):**

* 1. **Final Writeup**

Because we will have only a few hours to see a large number of projects and presentations, we'll only be able to get an overview of the work you did at the session. We know that most students work very hard on the final projects, and so we are extremely careful to give each writeup ample attention, and read and try very hard to understand everything you describe in it. After the final session, I will also post all the final writeups online so that you can read about each other's work. If you do not want your write-up to be posted online, then please let me know before the final submission deadline.

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| **Format** | Final project writeups can be at most 10 pages long (including appendices and figures). Structure of the final report will be similar to as mentioned above and in larger details. |
| **Code** | Please include a zip file or preferably a link to a Github repository with the code for your final project. You do not have to include the data or additional libraries (so if you submit a zip file, it should not exceed 5MB). |
| **Grading** | The final report will be judged based off of the clarity of the report, the relevance of the project to topics taught in CP322, the novelty of the problem, and the technical quality and significance of the work. |

* 1. **Project Presentations**

The projects will be presented in the class. Everyone should be prepared to give a short explanation/presentation (5 minutes), about their work. At the session, you'll also have an opportunity to see what everyone else did for their projects.

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| **Grading** | We will be grading presentations on the material quality and clarity, the technical content, as well as the knowledge demonstrated by the student when discussing their work at the session. |

**Please note Plagiarism is strictly prohibited.**