Machine Learning – CAB420

Final Project Guide

The final projects will be done in groups of 3 to 4 students, and can be chosen from a variety of topics/data sets. Each student's contribution should be indicated by a clear explanation of the contributions, and the percentage of the whole work. Your project should have enough amount of experiments for the group of 3/4 students. **Please note that your mark may be moderated depending on your individual percentage contribution specified in your report.**

1 Project Proposal (1 - 2 pages, Due Date: Week 11)

The proposal should include the following information: project title, project objective, datasets, timeline and the team members.

2 The Report (6-8 pages, Due Date: Week 13)

Each group's Report should be a maximum of **6-8 pages** long including the following headlines:

Project Name
Team No. #
Name1, Student ID1, Contribution: %
Name2, Student ID2, Contribution: %
Name3/4, Student ID3/4, Contribution: %

Introduction/Motivation: clearly motivate your project, and describe the research question, and how it relates to previous works that have been done in this area.

Related Works: Briefly describe couple of existing approaches, and the objective of your work.

Data: clearly describe the data set, the pre-processing, and the data split into training/test/validation.

Methodology: Clearly explain 2/3 algorithms that you used with the citations to the literature. Please note that your project ideally should extend the existing approaches. You don't need to propose a novel algorithm, but you might be looking into approaches that have not previously investigated on your working dataset.

Comparison, discussion, and Conclusion: Present the results of all your approaches clearly, and compare them with existing approaches. Discuss why your methods are working better/worse than the existing approaches.

Conclusions and Future Works: Clearly explain if the experiments match the objectives, the advantages/shortcomings of the proposed approached, and if any changes are required/ plans you have for the future investigations.

3 Presentation and Submission

All projects will have a 3 to 5 min presentation during the class in week 13. At least one project member should be present for the presentation. You are expected to describe the dataset and the 2/3 machine learning algorithms applied on it, and interpret the results.

One team member from each group should make the submission for the group. Please make sure that your report includes the student ID numbers of the team members, and the percentage of each team member's contribution.

Please submit via Blackboard a zip file containing: your proposal, your slides, your codes, and your final project report.