IS597MLC: Final Project Instructions

The machine learning cloud course is project-oriented, thus your project contributes to the high proportion (45%) of your final assessment. To help you work through the different stages of the machine learning pipeline building process, we have broken down the project into three subsections so that you are not trying to complete the entire project in the last week of the semester. This is not feasible because some of the steps are computationally expensive and you will need to allow for processing time. Please find an outline and description of each stage below. You will be expected to complete three activities.

If you find yourself in a situation where you are not able to complete activities in the time frame below, please let the instructors know in advance so that we can provide support accordingly.

Timeline of Project Activities

Activity	Due Date	%
Final project proposal	Week 10 (Mar 24)	10 %
Final project progress report	Week 13 (April 14)	5 %
Final project delivery	Week 16 (May 5)	30 %

Description of Project Activities

Final Project Proposal

Use the proposal template provided by the instructors. The document contains the description of the sections that should be included in your proposal and contents that are expected to see in each section. First, you must identify the topic you are interested in and obtain actual data sets that are publicly available. Use the resources provided by the instructor to access the open-sourced data sets or you can obtain from other sources you find. Please do not consider creating your own data since there is just not enough time within the semester to collect new data for your research. There are a lot of datasets available online for your download. After submission, you will be given feedback from the instructors to encourage you move forward with or change your plan.

What to submit:
- Your proposal document in a pdf format

How to submit:
Upload to UIUC Canvas site under the assignment activity provided.

Final Project Progress Report

You will be required to fill out a form that shows how much progress you have made with your project.

What to submit:
- A pdf form provided

How to submit:
Download a pdf form, complete and submit it to UIUC Canvas site under the assignment activity provided.

Final Project Delivery (final paper)

Revise your initial proposal based on your experimental results. Provide details about the experiments that you conducted. What have you learned from the analysis? What decisions did you make during the entire process? What evidence did you base these decisions on? What phase of the framework did you spend most of your time while building machine learning pipelines? What challenges or obstacles did you encounter while working on your research project? Are there anything you would have done differently if you had time to conduct? Reflect on what you have learned so far. Your final report should include the following sections:

- Introduction
- Literature Review
- Data
- Methodology
- Results
- Discussion & Conclusion
- GitHup repo
- References

In the 'GitHub repo' section, you must include the link to your GitHub repository containing the data set and all the Jupyter notebooks used to conduct your experiments. Note that you should also provide a main Jupyter notebook that explains the steps that are required to reproduce your work, e.g., which notebook runs first, which comes next, etc. Make sure to describe how to reproduce the same results you obtained throughout the entire process.

What to submit:
- Your final paper in a pdf format

How to submit:
Upload to UIUC Canvas site under the assignment activity provided.