ANLY 530-51-2017 (Late Spring)
Instructor: Dr. Martin A. Negrón

Class project (30% of final grade) – **Please follow the instructions**
The objective of the class project is to demonstrate your understanding of the machine learning tools discussed in class and your ability to analyze the products of a machine learning model.

The project includes 4 deliverables and a final presentation. Late deliveries will incur a penalty of 10 points for each day the upload is late.
Select a database from: http://archive.ics.uci.edu/ml/ or select your own database (it should be reasonably large)
Using the selected database deliver the following documents:

Project Proposal (20 points) - 5/2/2017 9:00 PM EST (PDF file upload – Text document)

> The project proposal includes a description of the work that you plan to do. Describe the data selected in terms of content, type and number of attributes and any other relevant information. Describe the machine learning tools that you plan to use (expected accuracy / why). Also include the results of initial data preparation procedures and data visualization results (relevant analysis and charts).
> **Define in detail the objectives of your machine learning models including the research questions that you plan to answer with your model.**

Model1 (20 points) - 5/9/2017 - (PDF file upload – PowerPoint template)

> Describe the objectives (expand the proposal objectives if needed)
> Describe the assumptions used to determine the type of machine learning tool selected
> Discuss the reasoning for attribute selection
> Discuss the results obtained from the model and how they relate to the objectives
> Appendix - R coding used (or equivalent tool) for the model

Model2 (20 points) - 5/16/2017 - (PDF file upload – PowerPoint template)

> Describe the objectives (expand the proposal objectives if needed)
> Describe the assumptions used to determine the type of machine learning tool used
> Discuss the reasoning for attribute selection
> Discuss the results obtained from the model and how they relate to the objectives
> Appendix - R coding used (or equivalent tool) for the model

Analysis white paper (20 points) - 5/23/2017 (PDF file upload – Text document)

> Include the proposal and compare your objectives with the results
> Compare the results obtained from the two machine learning tools used
> Discuss advantages and disadvantages of the two tools
> Discuss how the models could be improved

Final Presentation (20 points) - 6/3/2017 @ Harrisburg University

Present your results

- Emphasis should be in comparing results with original objectives and answering your proposed questions.
- Maximum 12 PowerPoint slides, 10 minutes