Tentative ISE 5149 Project Description Second Half

Due April 22

Instructions for the second half of your projects are as follows.

1. Address the feedback from part 1: more data, features, results, more responses, and/or other.
2. Create/enhance a literature review (at least 3 truly relevant works, e.g., Dunn and Bertsimas, 2017).
3. Express your results in either a PowerPoint presentation or a video file loaded on YouTube with a link to show in class (we will discuss this in class). The length should be between 5 and 7 minutes. Additional minutes will be reduced from your grade at a rate of 2/100 points per minute (does not include any Q&A). Suggested list of slides is as follows:

* Importance (Answer both why the subject is important and your contribution is important.)
* Literature Review (Cite at least 3 truly relevant works, Dunn and Bertsimas, 2017)
* Methods 1 (Diagram of the modeling strategy and other methods, maybe data description)
* Methods 2 (Diagram of the modeling strategy and other methods)
* Results 1 (Model Accuracy)
* Results 2 (Insights)
* Conclusions (List of Findings)

1. Consider whether your project is advanced prediction modeling with a simple decision (random forest, neural nets, or optimal trees) or control system (Efficient Global Optimization, multi armed bandit, or Q-Learning possibly with advanced modeling supporting).
   1. Prediction projects – enhance your previous data, features, and/or models. You may work with Enhao to apply Optimal Classification Trees.
   2. Control system projects – Describe the expected benefits of your system (results on numerical examples or expected discounted rewards). Describe how the methods can be implemented.
2. Create a list of findings or results that provide insights to real or imagined stakeholders.