Predictive Models
Syllabus

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This class is an introduction to supervised learning, ie, predictive models ideas. Our main goal is to introduce the main concepts and the students familiarize with the most popular tools in this area. The focus will be very applied as a more advance class on this topic will follow up in the Fall. Topics covered include: (i) k-Nearest Neighbors; (ii) Regression; (ii) Logistic Regression; (iii) Naive-Bayes; (iv) Regression Trees, (v) Neural Nets, etc.

This is going to be a very intensive class and students are expected to keep up with the readings and assignments on a daily basis!

1. Text Book: We will be using as required text

An Introduction to Statistical Learning by James, Witten, Hastie and Tibshirani.

We will cover chapters 1, 2, 5, 3, 6, 4 and 8 in this order. Students are expected to read the the chapters as we cover the material and complete the `R` labs at the end of each chapter.

2. Class Notes: All course materials include slides and sample code will be made available in the class website at:

`http://faculty.mccombs.utexas.edu/carlos.carvalho/teaching/`

3. Evaluation: your grade on my part of the class will be based on: **(1)** a very large homework (individual) due at the end of the course (August 9 at 5pm) (70% of the grade) and **(2)** a group project with a class presentation, code and data as deliverables (30% of the grade).

4. Schedule: My portion of the class will meet 8 times: Monday through Thursday in the next two weeks, from July 15 to July 25. That means no class on July 29 and 30. We will make that time up with project presentations later on (to be schedule).