Machine Learning

Spring 2016  COM S 573  Course Announcement

“Everything should be made as simple as possible, but not simpler.” - Albert Einstein

Machine learning refers to a set of tools for modeling and understanding complex datasets. It is a developed area in statistics and blends with parallel developments in computer science. The field encompasses many methods such as the lasso & sparse regression, pattern recognition & regression trees, and boosting & support vector machines, feature selection, unsupervised learning, etc.

With the explosion of “Big Data” problems, machine learning has become a very hot field in many scientific areas as well as marketing, finance, and other business disciplines. People with machine learning skills are in high demand.

Target audience: Advanced undergraduates or graduate students in statistics, computer science, engineering or related quantitative fields or for individuals in other disciplines who wish to use machine learning tools to analyze their data.

Class meeting time & place: MWF: 10 - 10:50am, Science 0102  
Instructor: Kris De Brabanter  
E-mail: kbrabant@iastate.edu  
Office: 2419 Snedecor Hall  
Office hours: F: 3 - 4pm (or by appointment)

Textbook: G. James, D. Witten, T. Hastie & R. Tibshirani, An Introduction to Statistical Learning (with applications in R), Springer, 2013

Homework: There will 5 homeworks assigned during the semester. Choosing a different language than R will fall under the sole responsibility of the student.

Grading: The course grade will be based on homework (50%) and a final exam (50%).