## machinelearning201: Lecture Materials:Lecture 1 and 2

The material for the first lecture comes from "Elements of Statistical Learning" chapters 2 and 3. We're also using professor Robert Tibshirani's lecture notes for stats 315a. Here's a link to Professor Tibshirani's web page for those slides. <a href="http://www-stat.stanford.edu/~tibs/stat315a.html">http://www-stat.stanford.edu/~tibs/stat315a.html</a> "Overview of Supervised Learning" through "Least angle regression and the lasso"

The r-scripts for the examples covered in the lecture are on this web site.

mixSim.R

Prostate.R

larsESLCh3fig10.R

References:

Professor Hastie's 1997 lecture notes on linear model: paper with example in r

Lars: <u>notes paper</u> <u>example</u>

To generate the curve given as figure 3.10 in the ESL text 🔲 larsESLCh3fig10.R

Professor Brad Efron's original LARS paper is located at <a href="http://www-stat.stanford.edu/~hastie/Papers/LARS/LeastAngle\_2002.pdf">http://www-stat.stanford.edu/~hastie/Papers/LARS/LeastAngle\_2002.pdf</a>

Andrew Ng's <u>lecture on linear regression</u> ... he gives details for taking the derivatives Examples:

Homework: P Homework01.pdf Check out the P leaps package

Link to Recorded Lecture 1&2

Part 1: https://datamining.webex.com/datamining/ldr.php?AT=pb&SP=MC&rID=106205227&rKey=36a27c21f518b547

Part 2: https://datamining.webex.com/datamining/ldr.php?AT=pb&SP=MC&rID=106205237&rKey=638d844e8ead8813

Software Links: