

1. Read Chapter 2 in the ESL textbook by yourself.
2. Randomly partition the prostate cancer data into 67 training data points and 30 testing data points. Redo the cross-validation procedure in “3_2_1.r” (http://homepages.math.uic.edu/~jyang06/stat485/R/3_2_1.r) and get the corresponding mean (absolute) prediction error and mean (squared) prediction error for all the three approaches: (I) mean training response only; (II) full linear model; (III) reduced linear model with `lcavol`, `lweight`, `lbph`, `svi`. Repeat the procedure for 100 times. Can you conclude whether one approach is significantly better than the other two in terms of mean prediction error? Attach your computer code and summarize your results.