Review of R

STA 325: Lab 1, Fall 2018

Today's agenda: A review of R, getting used to R markdown, vectors, matrices, scatterplots, and functions.

Programming partners: You should have a programming partner for each lab, and you should switch off who is programming, and use each other for help. We will spend about 30–50 minutes per week on lab exercises and you will be expected to bring your laptops to class to work on these exercises in class. Myself and the TA will be in class to help you.

Lab Tasks

1. Store three vectors using rnorm() of length $n = 100$ as Var1, Var2, and Var3.
2. List all the items currently in the environment.
3. Store Var1 in a 10×10 matrix. Call this myMatrix.
4. Create a scatterplot of Var1 vs. Var2. On the same plotting window include histograms of Var1 and Var2. Hint: Look at https://www.statmethods.net/advgraphs/layout.html for help!
5. Write a function that takes as its inputs, $p = 2$ n-dimensional vectors and a vector of length p containing the names of these vectors. Your function will combine these two vectors into a data.frame() to get the row-wise maximum and store this in a new vector. Finally produce a boxplot of this vector, store it as a separate .pdf, and return the mean value of this vector.