

# Review of R

STA 360: Lab 1, Fall 2020

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

## ***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  $10 \times 10$  matrix. Call this `myMatrix`.
4. Create a scatterplot of `Var1` vs. `Var2`. On the same plotting window include histograms of `Var1` and `Var2`.
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 combine these two vectors into a `data.frame()`, get the row-wise maximum and store this in a new vector. Finally produce a box-plot of this vector, store it as a separate `.pdf`, and return the mean value of this vector.