

Seminar 2

1. Load dataset *Computes.csv* into RStudio.
 - (a) Compute mean and median price using build-in R functions.
 - (b) Create your function to compute quantiles in R. Use it to compute quartiles of price. Use the built-in R function to do the same thing.
 - (c) Create your R functions to compute trimmed, and winsorized mean. Compute 0.1-trimmed, and 0.1-winsorized mean of price.
 - (d) Compute variance, standard deviation, range, IQR, MAD, skewness, and kurtosis of price.
 - (e) Create a boxplot for price.
 - (f) Create a histogram for price. Try a different number of breaks. Add kernel density estimation into the histogram.
 - (g) Create a table of relative frequencies for different RAM sizes. Compute Gini index and Entropy of RAM size data. Create pie chart for RAM size. Create bar chart for RAM size (both relative and absolute frequency).
 - (h) Create a boxplot for a price for each RAM size separately. Place those box plots into one graph.
 - (i) Create a histogram for a price for each RAM size separately. Use the same breaks and the same axis limits for each histogram. Place all histograms into one figure.
2. Download any colored image in jpg format. Load it into R using jpeg package command `readJPEG`. Create empty plot a insert the image into it using `rasterImage` command. From the load data matrix corresponding to your figure, create three histograms for red, green, and blue color. Add kernel density estimation to each histogram. Place all three histograms into one figure.