

HW7_Yun_Young

Problem 2

a. a for loop to iterate through all data points calculating the summed squared difference between the data points and mean of the data.

Completed.

b. repeat part a, but use vector operations to effect the same computation

Table 1: Time taken in Part A and B

	time_partA	time_partB
user.self	7.13	0.49
sys.self	0.00	0.13
elapsed	7.21	0.64
user.child	NA	NA
sys.child	NA	NA

c. repeat part a, but use dopar

I could not get it run properly

d. repeat part a, but use parSapply

I could not get it run properly

Problem 3

Problem 4

A. Impliment bootstrap algorithm using the data generated below for B=10,000.

Completed

B. Create a table of the result with the appropriate summary statistics.

Table 2: Beta esitimation showing head/tail

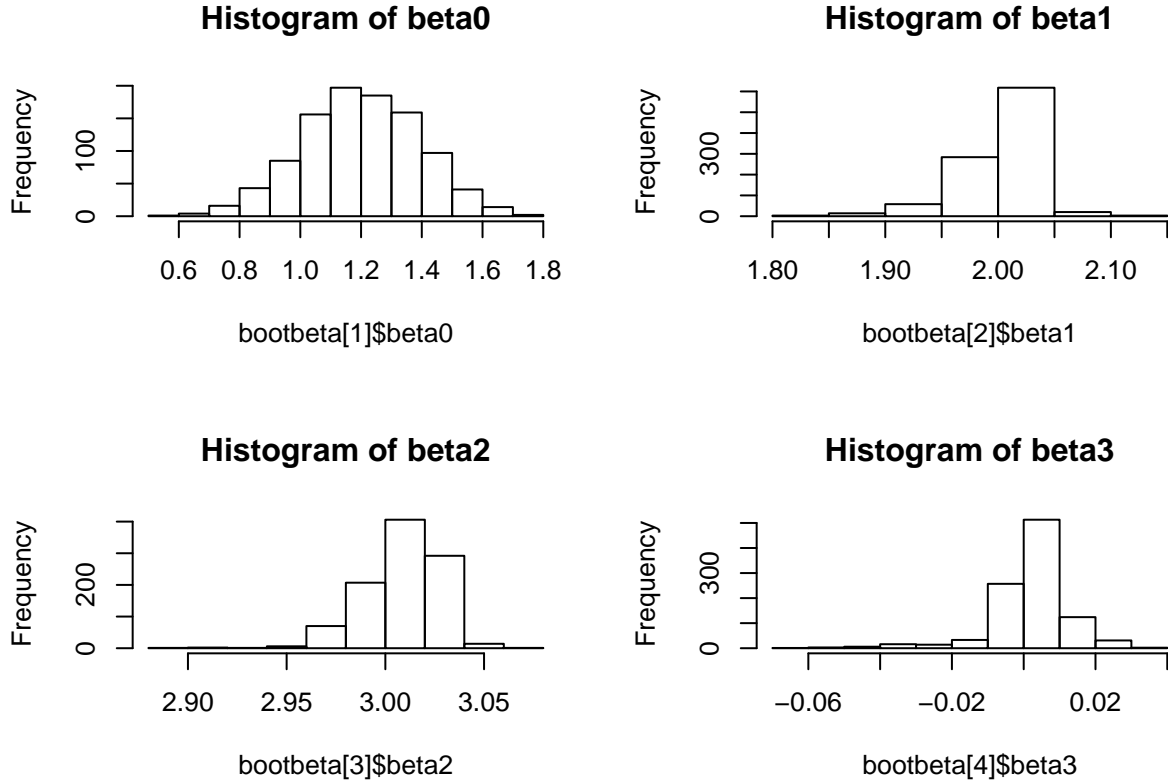
beta0	beta1	beta2	beta3
1.078183	2.043044	2.993203	-0.0025330
1.495377	2.004333	3.018744	-0.0027917
1.125650	2.017385	3.024526	0.0025531

beta0	beta1	beta2	beta3
1.072262	2.012420	3.007127	0.0054482
1.441659	2.008909	2.976881	0.0133677
1.285975	2.006083	3.006953	0.0025102
1.282491	2.013652	3.035972	0.0002116
1.549972	1.985416	2.992167	0.0056922
1.115289	1.986899	3.021935	0.0057874
1.218209	1.999312	3.005578	0.0146574
1.402823	2.001424	3.013095	-0.0011260
1.135967	2.007001	2.995590	0.0099876

Table 3: Beta estimattion Summary

beta0	beta1	beta2	beta3
Min. :0.5853	Min. :1.803	Min. :2.893	Min. : -0.062922
1st Qu.:1.0706	1st Qu.:1.994	1st Qu.:2.998	1st Qu.: -0.001251
Median :1.1981	Median :2.005	Median :3.011	Median : 0.002080
Mean :1.1983	Mean :1.998	Mean :3.009	Mean : 0.001815
3rd Qu.:1.3362	3rd Qu.:2.010	3rd Qu.:3.022	3rd Qu.: 0.006165
Max. :1.7216	Max. :2.125	Max. :3.060	Max. : 0.036983

C. Create histograms of the distribution of $\hat{\beta}$'s.



Which parallelization method did you use?

I used foreach, dopar as my parallelization method.

##What impediments did you encounter?

Using Forloop it was possible to use [i] as a tracking variable, but using foreach I could not use [i] as a variable because [i] does not change.

##How long did it take?

1.43 seconds is taken to do the foreach and dopar function.