Bootstrap for Regression

05/12/2020

Introduction

- Bootstrapping is a computer-intensive procedure.
- Allows us to estimate the sampling distribution of a statistic.

In class discussion

1. Original dataset

```
library(readr)
bloodpressure <- read_csv("bloodpressure.csv")
bloodpressure
```

```
# A tibble: 20 x 9
      X1    Pt    BP   Age Weight   BSA   Dur Pulse Stress
   <dbl> <dbl> <dbl> <dbl>  <dbl> <dbl> <dbl> <dbl>  <dbl>
 1     1     1   105    47   85.4  1.75   5.1    63     33
 2     2     2   115    49   94.2  2.1    3.8    70     14
 3     3     3   116    49   95.3  1.98   8.2    72     10
 4     4     4   117    50   94.7  2.01   5.8    73     99
 5     5     5   112    51   89.4  1.89   7      72     95
 6     6     6   121    48   99.5  2.25   9.3    71     10
 7     7     7   121    49   99.8  2.25   2.5    69     42
 8     8     8   110    47   90.9  1.9    6.2    66      8
 9     9     9   110    49   89.2  1.83   7.1    69     62
10    10    10   114    48   92.7  2.07   5.6    64     35
11    11    11   114    47   94.4  2.07   5.3    74     90
12    12    12   115    49   94.1  1.98   5.6    71     21
13    13    13   114    50   91.6  2.05  10.2    68     47
14    14    14   106    45   87.1  1.92   5.6    67     80
15    15    15   125    52  101.   2.19  10      76     98
16    16    16   114    46   94.5  1.98   7.4    69     95
17    17    17   106    46   87    1.87   3.6    62     18
18    18    18   113    46   94.5  1.9    4.3    70     12
19    19    19   110    48   90.5  1.88   9      71     99
20    20    20   122    56   95.7  2.09   7      75     99
```