Entrega D1: US Census Income

Pol Casacuberta Gil
Eric Hurtado
He Chen
Tommaso Patriti
Alexandru-Ilie Popa

Data source: UCI Machine Learning Repository: Census-Income (KDD) Data Set

Paragraph explaining how data was obtained:

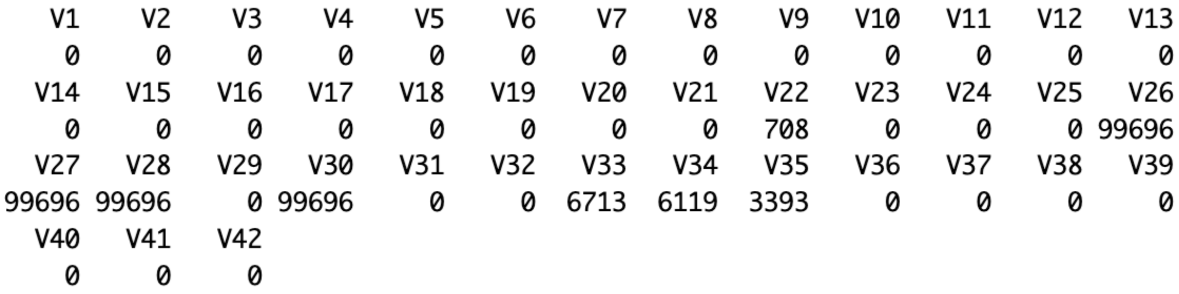
In order to get the data just use the URL given above and click on Download: Data Folder, you'll be redirected to a different page where you have to click on census.tar.gz. There you'll find three files, the data for the dataset, the explanation of the variables or "features" and the test dataset which we will need to test our machine learning models.
This data set contains weighted census data extracted from the 1994 and 1995 current population surveys conducted by the U.S. Census Bureau.

Paragraph explaining what data is about:
This data set contains weighted census data extracted from the 1994 and 1995 Current Population Surveys conducted by the U.S. Census Bureau. The data contains 41 demographic and employment related variables.
The instance weight indicates the number of people in the population that each record represents due to stratified sampling. To do real analysis and derive conclusions, this field must be used. This attribute should *not* be used in the classifiers.
One instance per line with comma delimited fields. There are 199523 instances in the data file and 99762 in the test file.
The data was split into train/test in approximately 2/3, 1/3 proportions using MineSet's MIndUtil mineset-to-mlc.

Nr of records: 299285
nr of variables: 42
nr of numerical variables: 7
nr of categorical variables: 33
Missing values: 415717

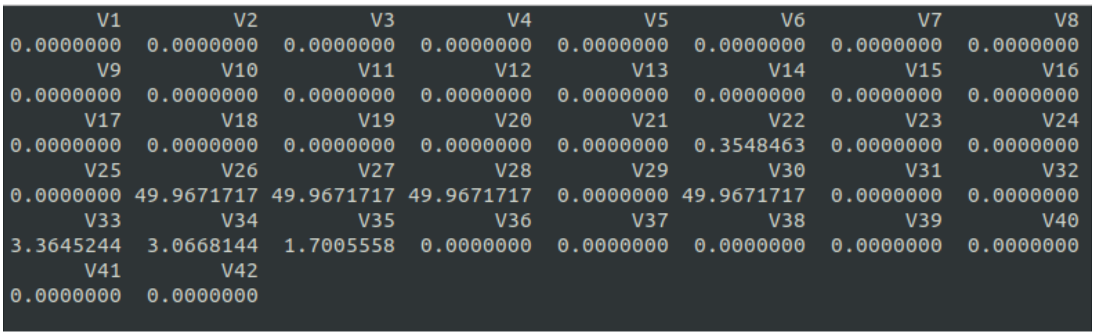
Basic structure of data matrix
n: 199523
K: 42
knumeric: 7
kbinary: 2
kquali: 32

Missing per variable:



```
   V1    V2    V3    V4    V5    V6    V7    V8    V9   V10   V11   V12   V13 
    0     0     0     0     0     0     0     0     0     0     0     0     0 
  V14   V15   V16   V17   V18   V19   V20   V21   V22   V23   V24   V25   V26 
    0     0     0     0     0     0     0     0   708     0     0     0 99696 
  V27   V28   V29   V30   V31   V32   V33   V34   V35   V36   V37   V38   V39 
99696 99696     0 99696     0     0  6713  6119  3393     0     0     0     0 
  V40   V41   V42 
    0     0     0 
```

%missing per variable:



```
        V1         V2         V3         V4         V5         V6         V7         V8 
 0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000 
        V9        V10        V11        V12        V13        V14        V15        V16 
 0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000 
       V17        V18        V19        V20        V21        V22        V23        V24 
 0.0000000  0.0000000  0.0000000  0.0000000  0.0000000  0.3548463  0.0000000  0.0000000 
       V25        V26        V27        V28        V29        V30        V31        V32 
 0.0000000 49.9671717 49.9671717 49.9671717  0.0000000 49.9671717  0.0000000  0.0000000 
       V33        V34        V35        V36        V37        V38        V39        V40 
 3.3645244  3.0668144  1.7005558  0.0000000  0.0000000  0.0000000  0.0000000  0.0000000 
       V41        V42 
 0.0000000  0.0000000 
```

Total %missing: 4.96