

R Notebook

Segue abaixo o calculo das medidas de complexidade

Exemplo usando as classes reais:

```
source("R/GetDataSet.R")
source("R/DataComplexityCalculate.R")

ListClass<- c("ecoli",
              "GlassLabel6",
              "haberman"
            )

df <- NA
#sobrescrevendo

for (classname in ListClass)
{

  print(classname)
  dataset1 <- as.data.frame( GetDataSet(classname))

  F1Data <- CalculateF1(dataset1)
  F2Data <- CalculateF2(dataset1)
  N2Data <- CalculateN2(dataset1)

  F3Data <- CalculateF3(dataset1)
  D2D3Data <- CalculateD2D3(dataset1, 5)

  if (classname == "ecoli")
    df <- cbind(classname, F1Data, F2Data, N2Data, F3Data, D2D3Data)
  else
    df <- rbind(df, cbind(classname, F1Data, F2Data, N2Data, F3Data, D2D3Data))
}

## [1] "ecoli"

## Parsed with column specification:
## cols(
##   Sequence = col_character(),
##   mcg = col_double(),
##   gvh = col_double(),
##   lip = col_double(),
##   chg = col_double(),
##   aac = col_double(),
##   alm1 = col_double(),
##   alm2 = col_double(),
##   label = col_character(),
```

```

##   labelpp = col_integer()
## )

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:plyr':
##
##   arrange, count, desc, failwith, id, mutate, rename, summarise,
##   summarize

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union

## Loading required package: spam

## Loading required package: dotCall64

## Loading required package: grid

## Spam version 2.2-0 (2018-06-19) is loaded.
## Type 'help( Spam)' or 'demo( spam)' for a short introduction
## and overview of this package.
## Help for individual functions is also obtained by adding the
## suffix '.spam' to the function name, e.g. 'help( chol.spam)'.

##
## Attaching package: 'spam'

## The following objects are masked from 'package:base':
##
##   backsolve, forwardsolve

## Loading required package: maps

##
## Attaching package: 'maps'

## The following object is masked from 'package:plyr':
##
##   ozone

## See www.image.ucar.edu/~nychka/Fields for
## a vignette and other supplements.

## [1] "GlassLabel6"

## Parsed with column specification:
## cols(
##   RI = col_double(),
##   Na = col_double(),
##   Mg = col_double(),
##   Al = col_double(),
##   Si = col_double(),
##   K = col_double(),
##   Ca = col_double(),
##   Ba = col_double(),

```

```

## Fe = col_double(),
## Label = col_integer()
## )

## [1] "haberman"

## Parsed with column specification:
## cols(
##   Age = col_integer(),
##   Year = col_integer(),
##   Node = col_integer(),
##   Survival = col_integer()
## )
df

```

	classname	F1	F1Parameter	F2	N2	F3Data
## X.gvh	ecoli	1.8042036	2	0.0000000	0.4247438	0.21428571
## X.Na	GlassLabel6	0.9531372	2	0.0000000	0.2391658	0.21962617
## X.Node	haberman	0.1831802	3	0.7177068	0.7947655	0.02941176
##	D2	D3_0	D3_1	D3		
## X.gvh	0.000000e+00	6	8	0.04166667		
## X.Na	2.209028e-04	5	3	0.03738318		
## X.Node	9.193791e+01	59	29	0.28758170		