

Uso Libreria Reticulate

Cabeto

18/6/2020

Reticulate

```
library(reticulate)
use_python("/Users/User/anaconda3/pkgs")
#py_install("nombre del paquete")
os<-import("os")
```

```
## Warning: Python '/Users/User/anaconda3/pkgs/python.exe' was requested but 'C:/
## Users/User/AppData/Local/r-miniconda/envs/r-reticulate/python.exe' was loaded
## instead (see reticulate::py_config() for more information)
```

```
os$listdir(".")
```

```
## [1] ".git" ".gitignore"
## [3] ".RData" ".Rhistory"
## [5] ".Rproj.user" "CursoIntroR.Rproj"
## [7] "data" "ejercicios"
## [9] "prueba.pdf" "prueba.Rmd"
## [11] "README.md" "rmarkdown-cheatsheet.pdf"
## [13] "scripts" "seaborn-data"
## [15] "symbols.pdf" "Tareas"
## [17] "teoria"
```

```
library(reticulate)
np <- import("numpy", convert = FALSE)
x <- np$array(c(1:4))
sum <- x$cumsum()
print("Este objeto es de python")
```

```
## [1] "Este objeto es de python"
```

```
print(sum)
```

```
## [ 1  3  6 10]
```

```
print("Este objeto es de R")
```

```
## [1] "Este objeto es de R"
```

```
py_to_r(sum)
```

```
## [1] 1 3 6 10
```

```
datos <- iris  
head(datos)
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species  
## 1          5.1          3.5          1.4          0.2  setosa  
## 2          4.9          3.0          1.4          0.2  setosa  
## 3          4.7          3.2          1.3          0.2  setosa  
## 4          4.6          3.1          1.5          0.2  setosa  
## 5          5.0          3.6          1.4          0.2  setosa  
## 6          5.4          3.9          1.7          0.4  setosa
```

```
datos_py <- r_to_py(datos)
```

```
import numpy as np  
import pandas as pd  
  
r.datos_py.head()
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species  
## 0          5.1          3.5          1.4          0.2  setosa  
## 1          4.9          3.0          1.4          0.2  setosa  
## 2          4.7          3.2          1.3          0.2  setosa  
## 3          4.6          3.1          1.5          0.2  setosa  
## 4          5.0          3.6          1.4          0.2  setosa
```

Sparse Matrix

```
library(Matrix)  
N <- 6  
sparse_mat <- sparseMatrix(  
  i = sample(N,N,replace =F),  
  j = sample(N,N,replace =F),  
  x = runif(N),  
  dims = c(N,N)  
)  
  
sparse_mat
```

```
## 6 x 6 sparse Matrix of class "dgCMatrix"  
##
```

```
## [1,] .          .          0.5070088 .          .          .  
## [2,] .          .          .          .          0.8433938 .  
## [3,] .          .          .          0.05174445 .          .  
## [4,] 0.7014054 .          .          .          .          .  
## [5,] .          .          .          .          .          0.5506868  
## [6,] .          0.9729843 .          .          .          .
```

```
sparse_mat_py <- r\_to\_py(sparse_mat)
```