

R & Phyton

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Reticulate

```
library(reticulate)
use_python("/users/ryong/anaconda3/python3.dll")
##py_install("numpy")
##py_install("pandas")
os <- import("os")
```

Warning: Python '/users/ryong/anaconda3/python3.dll.exe' was requested but 'C:/Users/ryong/AppData/Local/r-miniconda/envs/r-reticulate/python.exe' was loaded instead (see reticulate::py_config() for more information)

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

```
[1] ".gitignore"                "01_Prueba_de_Markdown_PDF.aux"
[3] "01_Prueba_de_Markdown_PDF.out"  "01_Prueba_de_Markdown_PDF.pdf"
[5] "01_Prueba_de_Markdown_PDF.Rmd"  "01_Prueba_de_Markdown_PDF.tex"
[7] "01_Prueba_de_Markdown_PDF_files" "02_Practicas_RMD.pdf"
[9] "02_Practicas_RMD.Rmd"          "03_Documentacion RMD.Rmd"
[11] "03_Documentacion-RMD.log"      "03_Documentacion-RMD.tex"
[13] "03_RyPython_RETICULATE.html"   "03_RyPython_RETICULATE.pdf"
[15] "03_RyPython_RETICULATE.Rmd"    "sumapy.py"
```

```
source_python("/USER/003_CURSOS/PROJECTS/MATEMATICAS/r-basic/scripts/tema14/sumapy.py")
suma(5,7)
```

```
## [1] 12
```

```
np <- import("numpy", convert = FALSE)
x <- np$array(c(1:6))
sum= x$cumsum()

print(sum)
```

```
## [ 1  3  6 10 15 21]
```

```
py_to_r(sum)
```

```
## [1] 1 3 6 10 15 21
```

```
#arrays
```

```
a <- np_array(c(1:6), order="C")  
a
```

```
## [1 2 3 4 5 6]
```

```
#convertir datos de r a py
```

```
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
```