

Herramientas para trabajar con python



Porque todo lo bueno
empieza con un poco de
miedo 🧑🏻 🦄





Agenda

1

Collab

2

Anaconda

3

Jupyter

4

Consola

5

IDE

6

orange





colab



Colaboratory



No requiere configuración



Da acceso gratuito a GPUs



Permite compartir contenido fácilmente





ANACONDA®



ANACONDA®



CMD.exe Prompt

0.1.1

Run a cmd.exe terminal with your current environment from Navigator activated

Launch



JupyterLab

1.2.6

An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture.

Launch



Notebook

6.0.3

Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis.

Launch



Orange 3

3.26.0

Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox.

Launch



Powershell Prompt

0.0.1

Run a Powershell terminal with your current environment from Navigator activated



Qt Console

4.6.0

PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.



Spyder

4.0.1

Scientific PYTHON Development EnviRnment. Powerful Python IDE with advanced editing, interactive testing,



VS Code

1.53.2

Streamlined code editor with support for development operations like debugging, task running and version control.

The background is a light blue gradient. It features several abstract elements: a large yellow shape in the top right corner with a cluster of white diagonal lines inside; a pink shape in the bottom left corner; a central pink oval with a thick blue border; and a cluster of black diagonal lines in the upper center. There are also several small black and white dots scattered across the background.

Más Herramientas

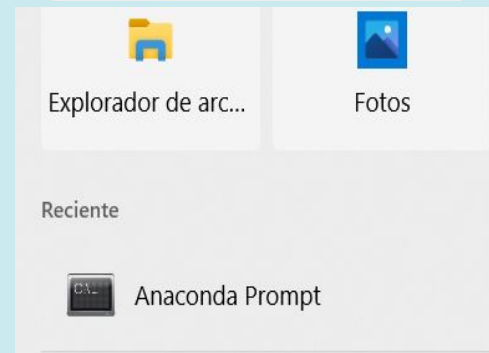
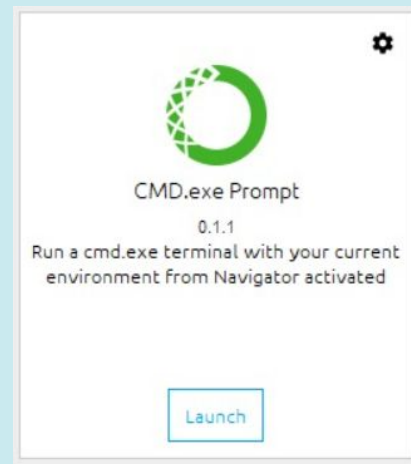
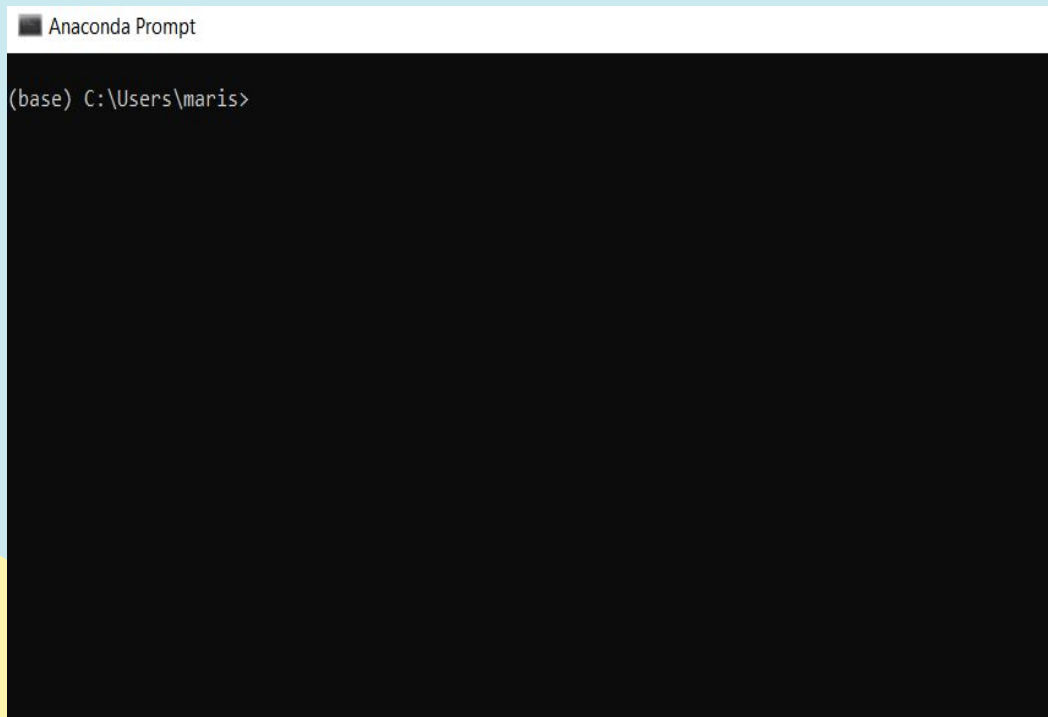
Instalación de herramientas

 <https://www.python.org/>

 <https://anaconda.org/anaconda/python>

 <https://code.visualstudio.com/>

la consola 🤓



Comandos

```
conda activate nombre_entorno
```

```
conda activate numpy
```

```
(base) C:\Users\admin>conda env list
# conda environments:
#
base                    * C:\Users\admin\Anaconda3
entorno1                C:\Users\admin\Anaconda3\envs\entorno1
entorno2                C:\Users\admin\Anaconda3\envs\entorno2
env_pandas              C:\Users\admin\Anaconda3\envs\env_pandas
numpy                   C:\Users\admin\Anaconda3\envs\numpy
numpy1_10               C:\Users\admin\Anaconda3\envs\numpy1_10
numpy2                  C:\Users\admin\Anaconda3\envs\numpy2
p34_data_science       C:\Users\admin\Anaconda3\envs\p34_data_science
python34                C:\Users\admin\Anaconda3\envs\python34
```

Comandos

Actualización de python

```
conda update python
```

```
(python34) C:\Users\admin>conda update python
Collecting package metadata: done
Solving environment: done
```

```
## Package Plan ##
```

```
environment location: C:\Users\admin\Anaconda3\envs\python34
```

```
added / updated specs:
- python
```

The following packages will be downloaded:

package	build		
backports-1.0	py27_1	3 KB	
backports.functools_lru_cache-1.5	py27_1	9 KB	
backports_abc-0.5	py27h0ec6b72_0	12 KB	
cycler-0.10.0	py27h59acbbf_0	13 KB	
freetype-2.9.1	h4d385ea_1	465 KB	
functools32-3.2.3.2	py27_1	23 KB	
futures-3.2.0	py27_0	24 KB	
icu-58.2	h2aa20d9_1	21.9 MB	
jpeg-9b	ha175dff_2	306 KB	
kiwisolver-1.0.1	py27hc56fc5f_0	66 KB	
libpng-1.6.36	h7a46e7a_0	512 KB	
matplotlib-2.2.3	py27h263d877_0	6.5 MB	
numpy-1.9.3	py27_3	2.8 MB	
openssl-1.0.2r	h0c8e037_0	4.6 MB	
pandas-0.20.3	py27he04484b_2	8.6 MB	
patsy-0.5.1	py27_0	377 KB	
pyparsing-2.3.1	py27_0	102 KB	
pyqt-5.6.0	py27h6e61f57_6	4.3 MB	
python-dateutil-2.8.0	py27_0	279 KB	
pytz-2018.9	py27_0	257 KB	
qt-5.6.2	vc0hc26008b_12	55.0 MB	

Comandos

Creación de un entorno con una versión de Python específica

```
conda create -n nombre_entorno python=versión
```

```
conda create -n python34 python=3.4
```

```
(base) C:\Users\admin>conda create -n python34 python=3.4
Collecting package metadata: done
Solving environment: done

## Package Plan ##

environment location: C:\Users\admin\Anaconda3\envs\python34

added / updated specs:
- python=3.4

The following packages will be downloaded:

package                        build                        size
-----
pip-9.0.1                      py34_1                      1.7 MB
python-3.4.5                   py34_1                      22.9 MB
setuptools-27.2.0              py34_1                      762 KB
vc-10                           0                          702 B
vs2010_runtime-10.00.40219.1  2                          1.1 MB
wheel-0.29.0                   py34_0                      123 KB
-----
Total:                          26.6 MB

The following NEW packages will be INSTALLED:

pip                pkgs/free/win-64::pip-9.0.1-py34_1
python             pkgs/free/win-64::python-3.4.5-0
setuptools         pkgs/free/win-64::setuptools-27.2.0-py34_1
vc                 pkgs/free/win-64::vc-10-0
vs2010_runtime     pkgs/free/win-64::vs2010_runtime-10.00.40219.1-2
wheel              pkgs/free/win-64::wheel-0.29.0-py34_0

Proceed ([y]/n)? y

Downloading and Extracting Packages
vc-10                702 B |#####| 100%
pip-9.0.1            1.7 MB |#####| 100%
vs2010_runtime-10.00 1.1 MB |#####| 100%
setuptools-27.2.0    762 KB |#####| 100%
wheel-0.29.0         123 KB |#####| 100%
python-3.4.5         22.9 MB |#####| 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: done

# To activate this environment, use
#
#     $ conda activate python34
```

Comandos

Instalación de una librería en un entorno cualquiera

```
conda install -n nombre_entorno librería
```

```
conda install -n numpy matplotlib
```

```
conda list -n numpy
```

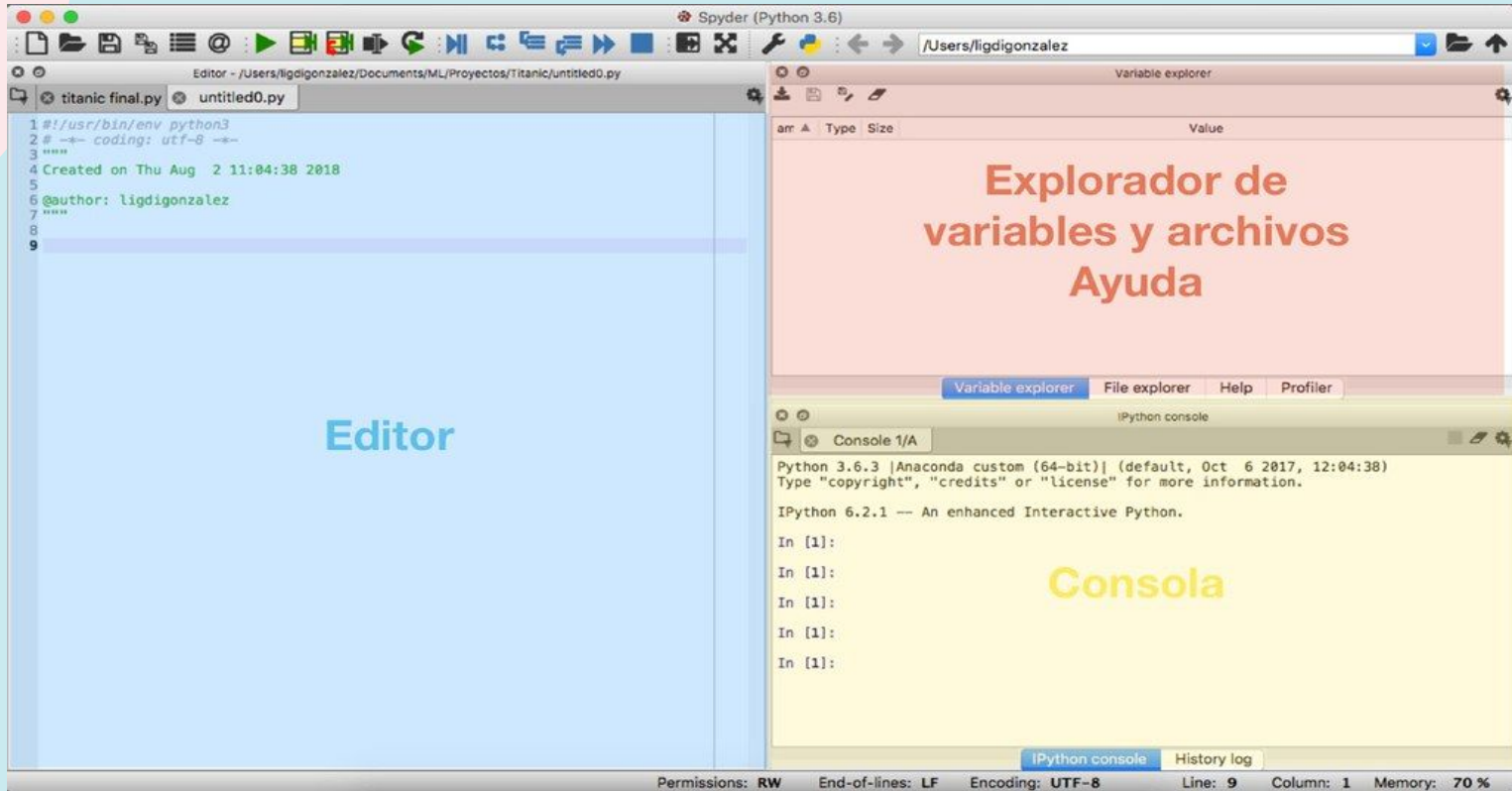
```
# packages in environment at C:\Users\admin\Anaconda3\envs\numpy:
#
# Name                    Version            Build    Channel
blas                     1.0                mkl
ca-certificates          2019.1.23          0
certifi                  2018.11.29         py37_0
cycler                   0.10.0             py37_0
freetype                 2.9.1              ha9979f8_1
icc_rt                   2019.0.0           h0ccc432a_1
icu                      58.2               ha66f8fd_1
intel-openmp             2019.1             144
jpeg                     9b                 hb83a4c4_2
kiwisolver               1.0.1              py37h6538335_0
libpng                   1.6.36             h2a8f88h_0
matplotlib               3.0.2              py37hc8f65d3_0
mkl                      2019.1             144
mkl_fft                  1.0.10             py37h14836fe_0
mkl_random               1.0.2              py37h343c172_0
numpy                    1.16.2             py37h19fb1c0_0
numpy-base               1.16.2             py37hc3f5095_0
openssl                  1.1.1b             he774522_0
pandas                   0.24.1             py37ha925a31_0
pip                      19.0.3             py37_0
pyparsing                2.3.1              py37_0
pyqt                     5.9.2              py37h6538335_2
python                   3.7.2              h8c8aaf0_10
python-dateutil          2.8.0              py37_0
pytz                     2018.9             py37_0
qt                       5.9.7              vc14h73c81de_0
scipy                    1.2.1              py37h29ff71c_0
setuptools               40.8.0             py37_0
sip                      4.19.8             py37h6538335_0
six                      1.12.0             py37_0
sqlite                   3.26.0             he774522_0
tornado                  5.1.1              py37hfa6e2cd_0
```

Editores de texto





Editores de texto





Editores de texto

Explorador de Variables

Name	Type	Size	Value
X	object	(889, 8)	ndarray object of numpy module
X_test	object	(178, 8)	ndarray object of numpy module
X_train	object	(711, 8)	ndarray object of numpy module
Y_pred	int64	(178,)	[0 0 0 ... 0 0 0]
bins	list	8	[0, 0, 15, 18, 25, 40, 60, 100]
df_test	DataFrame	(417, 9)	Column names: Unnamed: 0, PassengerId, Pclass, Sex, Age, SibSp, Parch, ...
df_train	DataFrame	(889, 9)	Column names: Unnamed: 0, Survived, Pclass, Sex, Age, SibSp, Parch, Fa ...

Explorador de Archivos

Name	Size	Kind	Date Modified
fb	--	Folder	30/10/17 4:37 P. M.
test.csv	27 KB	csv File	30/10/17 4:48 P. M.
titanic final.py	6 KB	py File	1/8/18 11:13 A. M.
titanic_test.csv	29 KB	csv File	2/6/18 1:23 P. M.
titanic_train.csv	63 KB	csv File	2/6/18 1:23 P. M.
titanic.py	3 KB	py File	30/11/17 2:31 P. M.
train.csv	59 KB	csv File	30/10/17 4:48 P. M.

Source Console Object

Usage

Here you can get help of any object by pressing **Cmd+I** in front of it, either on the Editor or the Console.

Help can also be shown automatically after writing a left parenthesis next to an object. You can activate this behavior in *Preferences > Help*.

New to Spyder? Read our [tutorial](#)

Ayuda



The image shows the Spyder Python IDE interface. The left pane displays a Python script named 'titanic final.py' with the following code:

```
104
105 print(df_train.shape)
106 print(df_test.shape)
107
108 print(df_test.head())
109 print(df_train.head())
110
111
112 #####APLICACIÓN DE ALGORITMOS DE MACHINE LEARNING#####
113
114 #Separo la columna con la información de los sobrevivientes
115 X = np.array(df_train.drop(['Survived'], 1))
116 y = np.array(df_train['Survived'])
117
118 #Separo los datos de "train" en entrenamiento y prueba para probar los algoritmos
119 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2)
120
121 ##Regresión logística
122 logreg = LogisticRegression()
123 logreg.fit(X_train, y_train)
124 Y_pred = logreg.predict(X_test)
125 print('Precisión Regresión Logística:')
126 print(logreg.score(X_train, y_train))
127
128 ##Support Vector Machines
129 svc = SVC()
130 svc.fit(X_train, y_train)
131 Y_pred = svc.predict(X_test)
132 print('Precisión Soporte de Vectores:')
133 print(svc.score(X_train, y_train))
134
135 ##K neighbors
136 knn = KNeighborsClassifier(n_neighbors = 3)
137 knn.fit(X_train, y_train)
138 Y_pred = knn.predict(X_test)
139 print('Precisión Vecinos más Cercanos:')
140 print(knn.score(X_train, y_train))
141
142
143 #####PREDICCIÓN UTILIZANDO LOS MODELOS#####
144
145 ids = df_test['PassengerId']
146
```

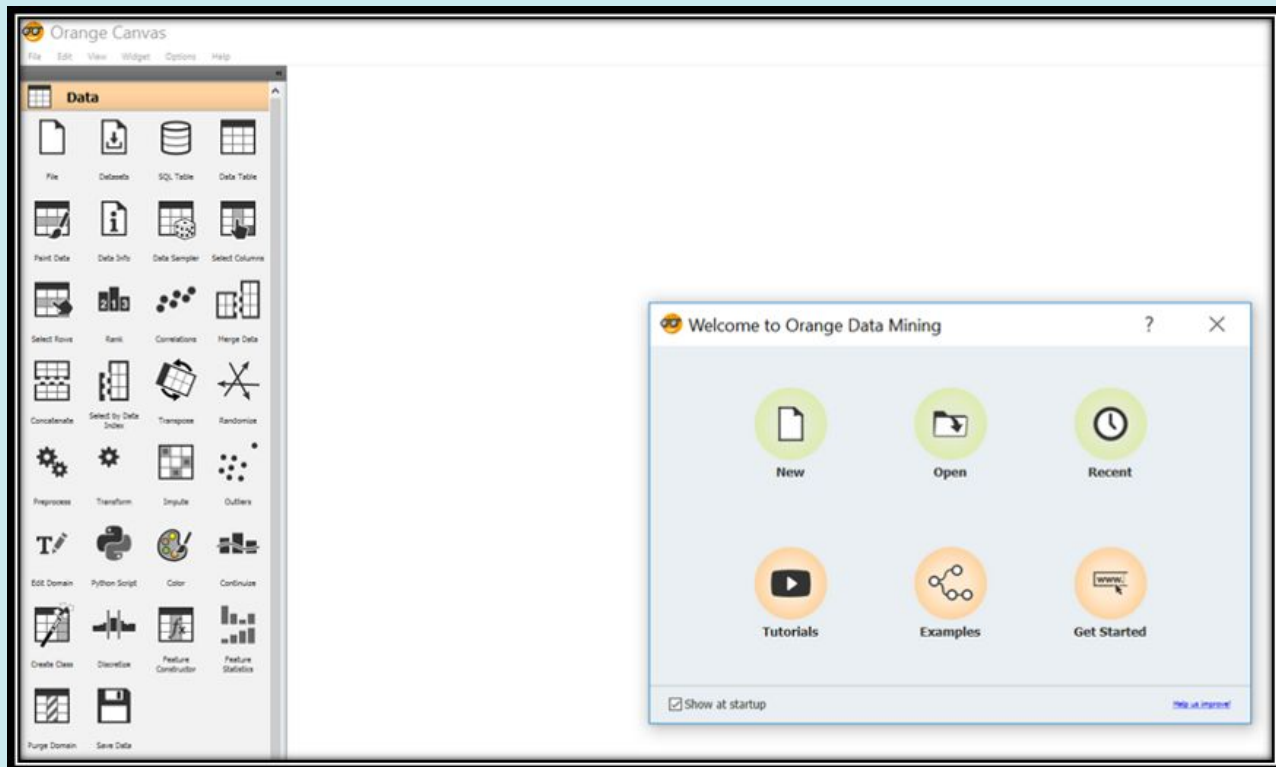
The right pane shows the 'Console' tab with the following output:

```
2      894      0
3      895      0
4      896      1
Predicción Soporte de Vectores:
PassengerId Survived
0      892      0
1      893      0
2      894      0
3      895      0
4      896      0
Predicción Vecinos más Cercanos:
PassengerId Survived
0      892      0
1      893      0
2      894      0
3      895      0
4      896      0
```

Below the console output, the 'In [2]:' prompt is visible, followed by the 'iPython console' and 'History log' tabs.



orange





Kaggle

≡ kaggle

Home

Compete

Data

Code

Communities

Courses

More

Recently Viewed

Otto-Product-NN-Acc...

Otto Group Product Cl...

Market Data Visualizati...

MarketAnalyticsEDA

Marketing Analytics

View Active Events

Search



Welcome Maris Botero

This is your personal newsfeed. As we learn what you like, we'll update you on cool Kaggle stuff that matches your interests. You can also choose to follow topics, notebooks, and people you want to keep up with.



Olga Belitskaya • Follow
created this notebook 8 days ago



Olga Belitskaya commented on this notebook 5

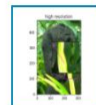
TensorFlow Practice 15

Python Notebook on [Python Recipes](#)

⌚ 16m to run | 📄 198 lines | 👁 68 views | 📊 10 visualizations

high resolution

400



Maris Botero
Joined 2 years ago



Novice

- ☐ Add a bio to your profile
- ☐ Add your location
- ☐ Add your occupation
- ☐ Add your organization
- ☐ SMS verify your account
- ☒ Run 1 notebook
- ☐ Make 1 competition or task submission
- ☐ Make 1 comment

iGracias!



DATA SCIENCE FEM

Alternative Resources



• Recursos



<https://orangedatamining.com/blog/page/2/>

<https://towardsdatascience.com/data-science-made-easy-interactive-data-visualization-using-orange-de8d5f6b7f2b>

<https://www.anaconda.com/help>