

INSTALACIÓN DE HERRAMIENTAS

INSTALACIÓN SIMULADORES DE AUTOS

- Descargar el Emulador de Udacity según el sistema operativo:
 - Windows:
 - <https://s3-us-west-1.amazonaws.com/udacity-selfdrivingcar/Term1-Sim/term1-simulator-windows.zip>
 - Mac:
 - <https://github.com/endymioncheung/CarND-MacCatalinaSimulator>
 - Linux:
 - <https://s3-us-west-1.amazonaws.com/udacity-selfdrivingcar/Term1-Sim/term1-simulator-linux.zip>
- Descargar el emulador DonkeyCar:
 - <https://github.com/tawnkramer/gym-donkeycar/releases/tag/v20.11.17>

INSTALACIÓN CONDA

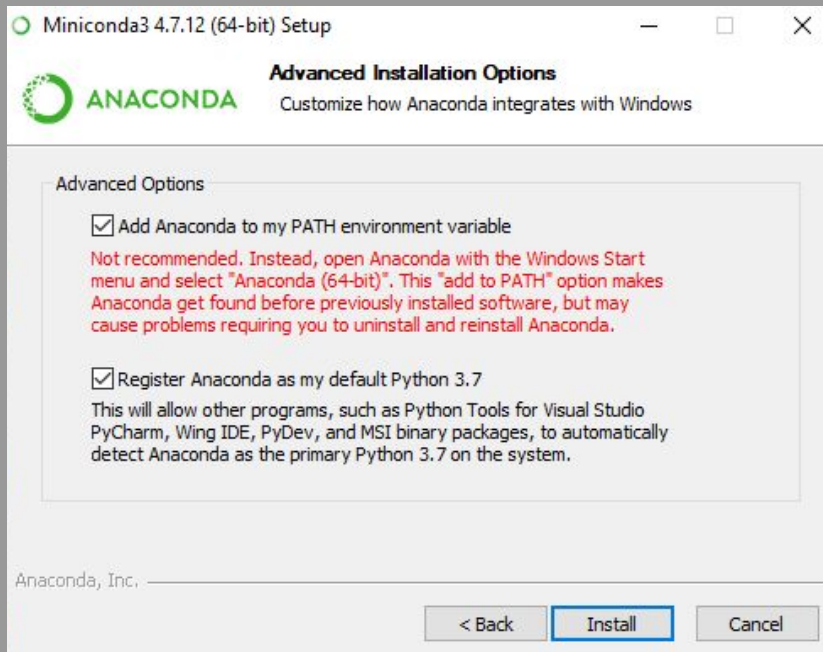
A continuación se presenta el proceso de instalación para los sistemas operativos.

WINDOWS:

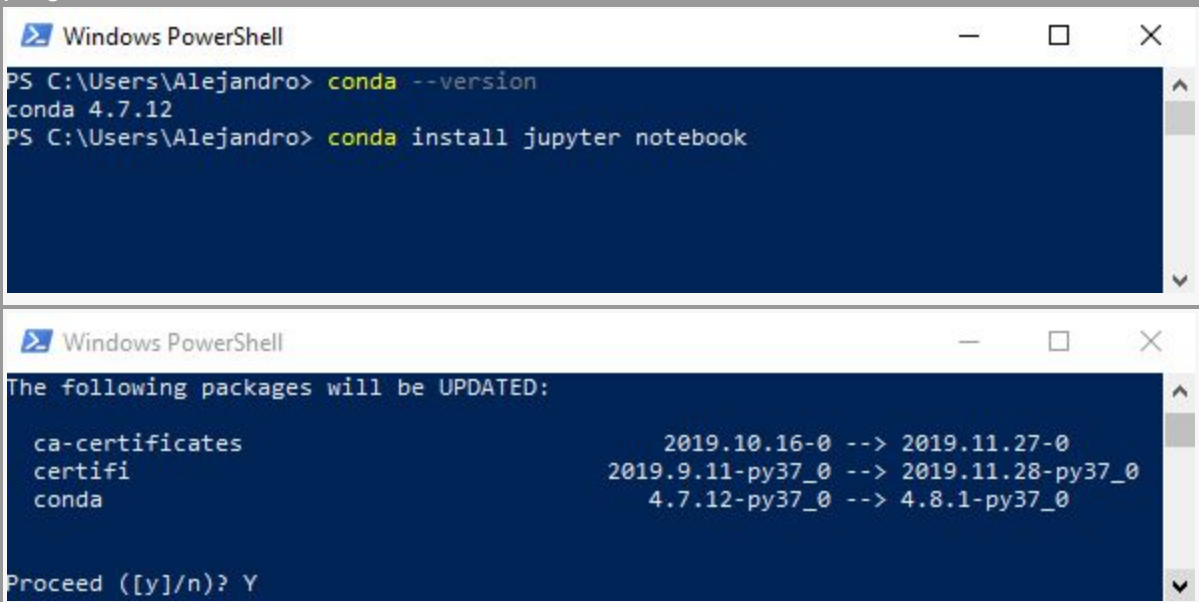
- Descargar miniconda: <https://docs.conda.io/en/latest/miniconda.html>

| Windows installers | | | |
|--------------------|---------------------------|----------|--|
| Windows | | | |
| Python version | Name | Size | SHA256 hash |
| Python 3.7 | Miniconda3 Windows 64-bit | 51.5 MiB | f10060cc0bb50ae75e4d602b7ce35197c0e31e8128d069b758594f1b46ab45 |
| | Miniconda3 Windows 32-bit | 54.0 MiB | 7c30778941d2bba03531ba269a78a108b01fa366530290376e7c3b4673c66ba |
| Python 2.7 | Miniconda2 Windows 64-bit | 50.9 MiB | 8647c54056f11842c37854edeff4d20bc1fbdad8b88d9d34d76fda1630e64846 |
| | Miniconda2 Windows 32-bit | 48.7 MiB | 0d106228d6a4610b599df965dd6d9bb659329a17e30693e3274b20291a7c6f94 |

- Tener presente en activar la casilla para añadir la variable de entorno a PATH



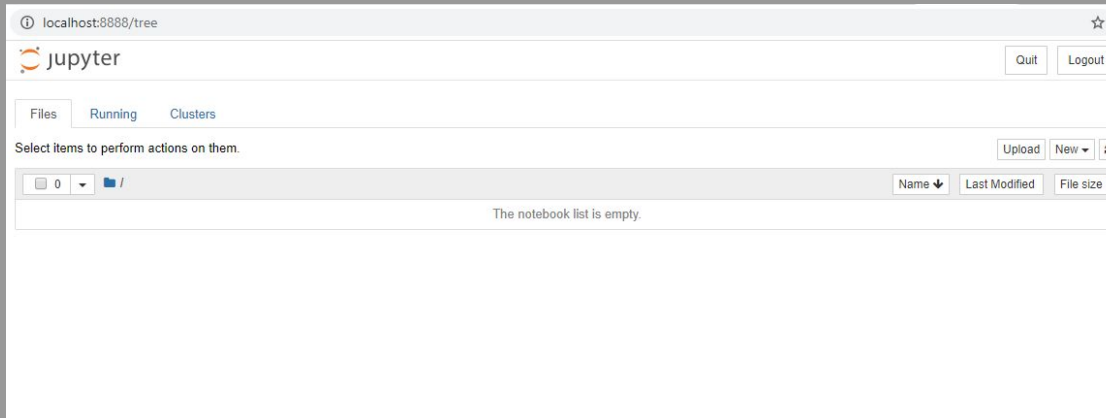
- Abrir Windows PowerShell, verificar la versión de conda, e ingresar el comando para instalar Jupyter Notebook. Ingresar la letra Y para continuar con la instalación cuando lo pregunte.



- Crear una carpeta desde el PowerShell y Ejecutar jupyter Notebook:

```
/> mkdir notebooks  
> cd notebooks  
> conda jupyter-notebook
```

- Les abrirá en el navegador que seleccionen la interfaz de Jupyter Notebook



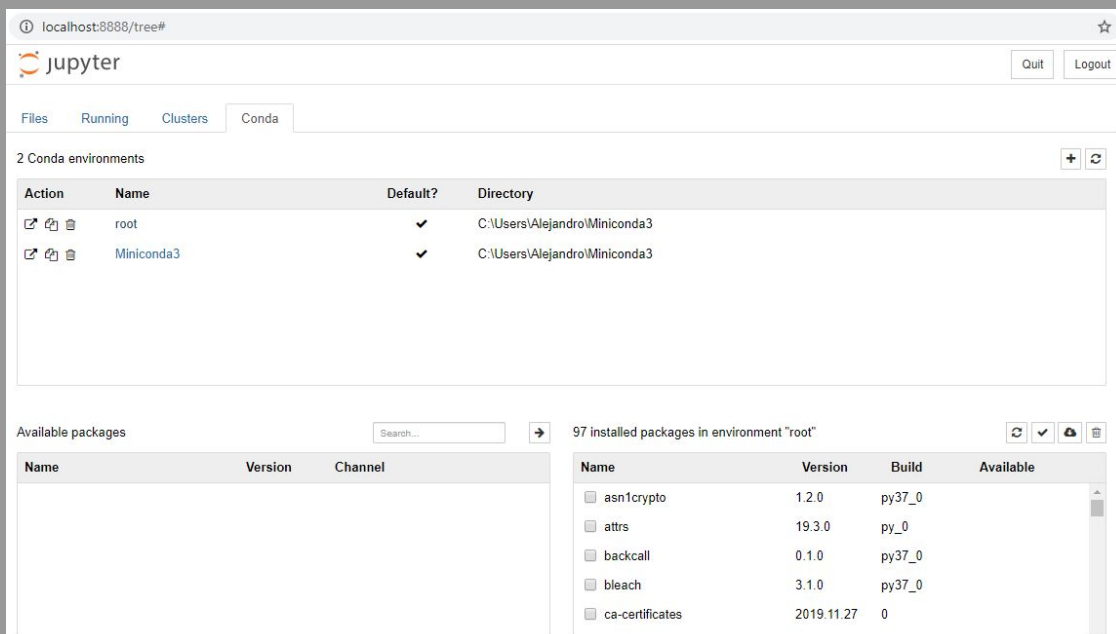
- Vamos a detener la consola para instalar un plugin. En la consola PowerShell, usar la combinación de teclas Ctrl + C. Luego ingresar el siguiente comando:

```
/> conda install nb_conda
```

Ingresar la letra Y para continuar con la instalación cuando lo pregunte.

- Ejecutar nuevamente jupyterNotebook y verificar que aparezca la pestaña “conda”. Ignorar el mensaje de error

```
/> jupyter-notebook
```



- Seleccionar “root” y en la parte inferior usar el buscador para instalar los siguientes paquetes:
 - opencv
 - matplotlib
 - numpy

MAC & LINUX:

El proceso de instalación para Mac y Linux es similar, en caso de tener algún inconveniente, informar a los organizadores.

- Descargar miniconda: <https://docs.conda.io/en/latest/miniconda.html>

Linux installers

| Linux | | | |
|----------------|-------------------------|----------|--|
| Python version | Name | Size | SHA256 hash |
| Python 3.7 | Miniconda Linux 64-bit | 68.5 MiB | bfe34e1fa28d6d75a7ad05fd02fa5472275673d5f5621b77380998dee1be15d2 |
| | Miniconda3 Linux 32-bit | 62.7 MiB | f387eded3fa4ddc3104b7775e62d59065b30205c2758a8b06b4c27144adafcc4 |
| Python 2.7 | Miniconda2 Linux 64-bit | 46.0 MiB | 383fe7b6c2574e425eee3c65533a5101e68a2d525e66356844a80aa02a556695 |
| | Miniconda2 Linux 32-bit | 39.0 MiB | 2e20ac4379ca5262e7612f84ad26b1a2f2782d6994facdec28e0baf51749979 |

- Usar el siguiente comando para instalar:

`$ sh <Miniconda.sh>`
- Leer toda la licencia. Para saltar la lectura presionar la tecla “q”.

```
sh Miniconda3-latest-Linux-x86_64.sh

=====
Miniconda End User License Agreement
=====

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--More--
```

- Luego aparecerá la confirmación para la instalación, escribir “yes” para continuar.


```
sh Miniconda3-latest-Linux-x86_64.sh

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=====

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ently reside may have restrictions on the import, possession, use, and/or re-exp
ort to another country, of encryption software. BEFORE using any encryption soft
ware, please check your country's laws, regulations and policies concerning the

Do you accept the license terms? [yes|no]
[no] >>>
```

- Recomendamos usar los parámetros por defecto que nos preguntará durante la instalación, para ello presionar “enter” y “yes” en los casos pertinentes.

```
sh Miniconda3-latest-Linux-x86_64.sh

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ently reside may have restrictions on the import, possession, use, and/or re-exp
ort to another country, of encryption software. BEFORE using any encryption soft
ware, please check your country's laws, regulations and policies concerning the

Do you accept the license terms? [yes|no]
[no] >>> yes

Miniconda3 will now be installed into this location:
/home/aldajo92/miniconda3

- Press ENTER to confirm the location
- Press CTRL-C to abort the installation
- Or specify a different location below

[/home/aldajo92/miniconda3] >>>
```

- Recomendamos remover el siguiente bloque de .bashrc (o . según sea el caso):

```
# >>> conda initialize >>>
```

```
# !! Contents within this block are managed by 'conda init' !!
__conda_setup="$('/home/alda92/miniconda3/bin/conda' 'shell.bash' 'hook'
2> /dev/null)"
if [ $? -eq 0 ]; then
    eval "$__conda_setup"
else
    if [ -f "/home/alda92/miniconda3/etc/profile.d/conda.sh" ]; then
        . "/home/alda92/miniconda3/etc/profile.d/conda.sh"
    else
        export PATH="/home/alda92/miniconda3/bin:$PATH"
    fi
fi
unset __conda_setup
# <<< conda initialize <<<
```

- Iniciar una nueva consola y ejecutar:

```
$ source ~/miniconda3/bin/activate
```

Así podremos tener acceso al comando conda.

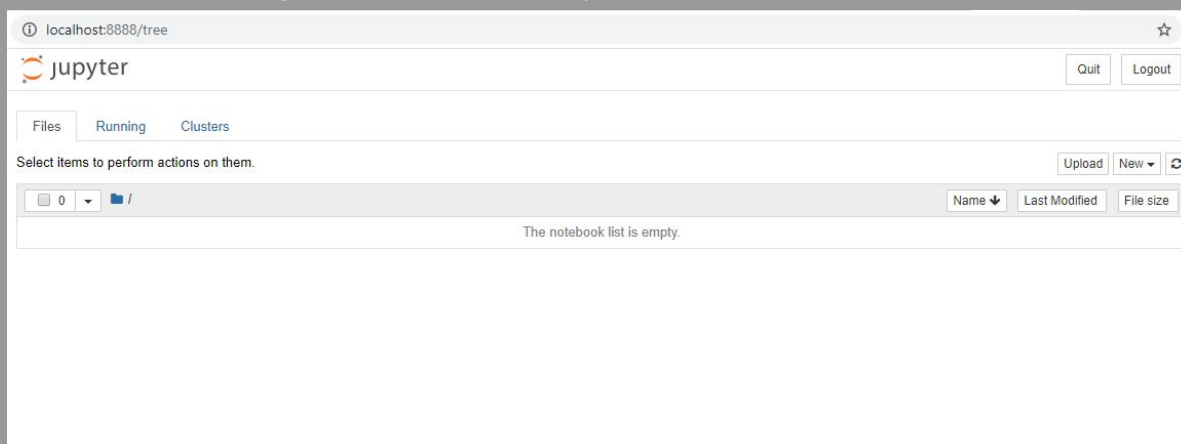
- Instalar jupyterlab

```
$ conda install -c conda-forge jupyterlab
```

- Crear una carpeta desde la Terminal y Ejecutar jupyterNotebook:

```
$ mkdir notebooks
$ cd notebooks
$ jupyter-notebook
```

- Les abrirá en el navegador la interfaz de JupyterNotebook



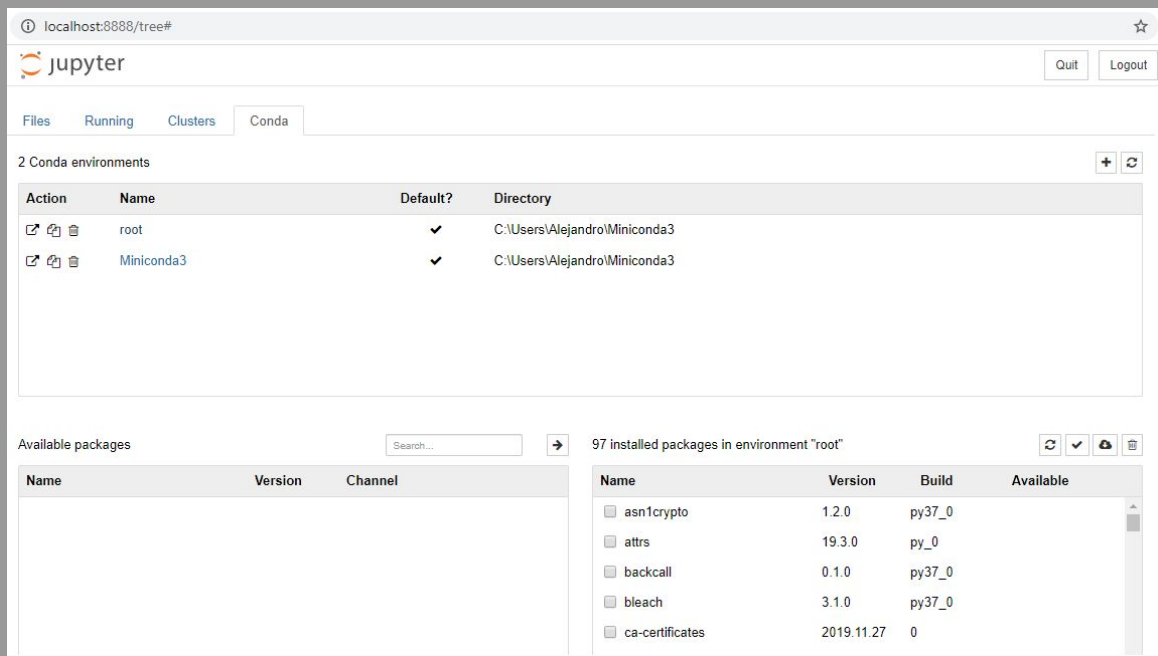
- Vamos a detener la consola para instalar un plugin. En Terminal, usar la combinación de teclas Ctrl + C. Luego ingresar el siguiente comando:

```
$ conda install nb_conda
```

Ingresar la letra Y para continuar con la instalación cuando lo pregunte.

- Ejecutar nuevamente jupyterNotebook y verificar que aparezca la pestaña “conda”. Ignorar el mensaje de error

```
$ jupyter-notebook
```



The screenshot shows the JupyterLab web interface at localhost:8888/tree#. The 'Conda' tab is active, displaying a table of 2 Conda environments:

| Action | Name | Default? | Directory |
|--------|------------|----------|-------------------------------|
| | root | ✓ | C:\Users\Alejandro\Miniconda3 |
| | Miniconda3 | ✓ | C:\Users\Alejandro\Miniconda3 |

Below the environments table, there are two sections:

- Available packages:** A search bar with the text "Search..." and a right arrow.
- 97 installed packages in environment "root":** A table listing installed packages with columns for Name, Version, Build, and Available.

| Name | Version | Build | Available |
|-----------------|------------|--------|--------------------------|
| asncrypto | 1.2.0 | py37_0 | <input type="checkbox"/> |
| attrs | 19.3.0 | py_0 | <input type="checkbox"/> |
| backcall | 0.1.0 | py37_0 | <input type="checkbox"/> |
| bleach | 3.1.0 | py37_0 | <input type="checkbox"/> |
| ca-certificates | 2019.11.27 | 0 | <input type="checkbox"/> |

- Seleccionar “root” y en la parte inferior usar el buscador para instalar los siguientes paquetes:
 - opencv
 - matplotlib
 - numpy

Referencias:

- <https://classroom.udacity.com/courses/ud1111>
- <https://github.com/tawnkramer/gym-donkeycar>