


# Follow Person II

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OBJETIVO:  
INSTALAR DARKNET

# NVIDIA Jetson AGX Xavier

- Darknet:
  - CUDA  $\geq$  10.2
- Actualizar Jetpack
  - SDK Manager



```
jtop AGX Xavier [16GB] - JC: Inactive - 15W
NVIDIA Jetson AGX Xavier [16GB] - Jetpack 4.1.1 [L4T 31.1.0]

- Up Time:      0 days 0:32:14          Version: 3.1.1
- Jetpack:      4.1.1 [L4T 31.1.0]      Author: Raffaello Bonghi
- Board:                                     e-mail: raffaello@rnext.it
  * Type:          AGX Xavier [16GB]
  * SOC Family:    tegra194      ID: 25
  * Module:        P2888-0001    Board: P2822-0000
  * Code Name:     galen
  * Cuda ARCH:     7.2
  * Serial Number: 0421419020930

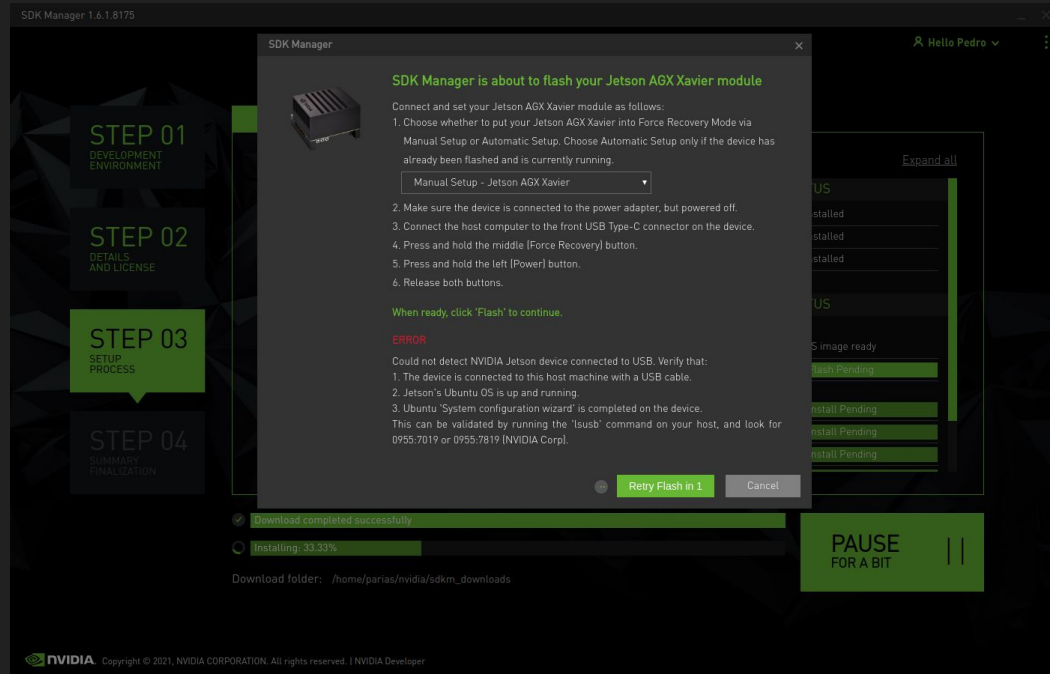
- Libraries:
  * CUDA:          10.0.117
  * OpenCV:         3.3.1   compiled CUDA: NO
  * TensorRT:       5.0.3.2
  * VPI:            NOT_INSTALLED
  * VisionWorks:    1.6.0.500n
  * Vulkan:         1.1.70
  * cuDNN:          7.3.1.20

- Hostname:      jetson-02
- Interfaces:
  * docker0:      172.17.0.1
  * l4tbr0:        192.168.55.1
  * eth0:          10.117.150.93

1ALL 2GPU 3CPU 4MEM 5CTRL 6INFO Quit
Raffaello Bonghi
```

# SDK Manager

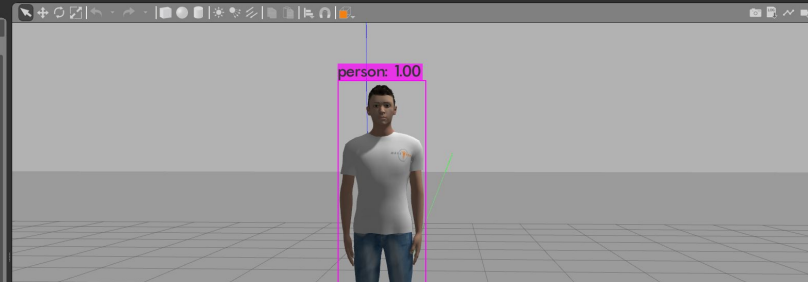
- Problemas en la descarga
  - Eduroam
  - Espacio en disco
- USB 128Gb, Ubuntu 18.04
- No detecta Nvidia Jetson
  - lsusb



# Darknet en local

- Muy lento
- Sin espacio para CUDA cuDNN
- Ubuntu -> USB 128Gb
  - Todavía en proceso de instalación
  - CUDA y cuDNN
    - Problema al compilar darknet -> *segmentation fault*

CUDA v11.4  
nvcc v9.1  
cuDNN v8.2.4



parias@stick: ~

Archivo Editar Ver Buscar Terminal Ayuda

```
parias@stick:~$ nvidia-smi
```

Tue Sep 28 17:35:09 2021

NVIDIA-SMI 470.57.02		Driver Version: 470.57.02		CUDA Version: 11.4	
GPU	Name	Persistence-M	Bus-Id	Disp.A	Volatile Uncorr. ECC
Fan	Temp	Perf	Pwr:Usage/Cap	Memory-Usage	GPU-Util Compute M.
					MIG M.
0	NVIDIA GeForce ...	On	00000000:01:00.0	Off	N/A
N/A	53C	P3	N/A / N/A	787MiB / 4042MiB	6%
					Default
					N/A

Processes:						
GPU	GI ID	CI ID	PID	Type	Process name	GPU Memory Usage
0	N/A	N/A	1272	G	/usr/lib/xorg/Xorg	47MiB
0	N/A	N/A	1459	G	/usr/bin/gnome-shell	88MiB
0	N/A	N/A	1686	G	/usr/lib/xorg/Xorg	242MiB
0	N/A	N/A	1860	G	/usr/bin/gnome-shell	54MiB
0	N/A	N/A	3086	G	/usr/lib/firefox/firefox	343MiB
0	N/A	N/A	3357	G	/usr/lib/firefox/firefox	1MiB
0	N/A	N/A	3392	G	/usr/lib/firefox/firefox	1MiB
0	N/A	N/A	4581	G	/usr/lib/firefox/firefox	1MiB
0	N/A	N/A	6083	G	/usr/lib/firefox/firefox	1MiB
0	N/A	N/A	6717	G	/usr/lib/firefox/firefox	1MiB

```
parias@stick:~$ nvcc --version
```

nvcc: NVIDIA (R) Cuda compiler driver  
Copyright (c) 2005-2017 NVIDIA Corporation  
Built on Fri Nov 3 21:07:56 CDT 2017  
Cuda compilation tools, release 9.1, V9.1.85

```
parias@stick:~$
```

# Soluciones

- Local:
  - Seguir en nuevo equipo
  - Darknet acabará compilando
- Jetson:
  - Buscar darknet con CUDA < 10.2
  - Otra implementación de YOLO
  - Probar con cable original del kit (?)