

Install and run Yolo on NVIDIA Jetson Xavier Nx

Update the libraries

- `sudo apt-get update`

Install Jtop to view CPU, GPU, memory, temperature ...

- `sudo -H pip3 install jetson-stats`
- `sudo jtop`

Download darknet

- `git clone https://github.com/AlexeyAB/darknet.git`

Export CUDA path (Running GPU)

- edit `~/bashrc` file

Copy-paste at the end of the file the following commands:

- `export DARKNET_HOME=/home/dask/darknet/`
- `export CUDA_HOME=/usr/local/`
- `export PATH=${DARKNET_HOME}:${CUDA_HOME}bin:${PATH}`
- `export PATH=/usr/local/cuda-10.2/bin${PATH:+:${PATH}}`
- `export LD_LIBRARY_PATH=${LD_LIBRARY_PATH}:/usr/local/cuda-10.2/lib${LD_LIBRARY_PATH:+:${LD_LIBRARY_PATH}}`

Be careful with red commands. Need to change them based on your system

- `source ~/.bashrc`

Download the entire version YoloV4 and the smallest version YoloV4-tiny

- `wget https://github.com/AlexeyAB/darknet/releases/download/darknet_yolo_v3_optimal/yolov4.weights`
- `wget https://github.com/AlexeyAB/darknet/releases/download/darknet_yolo_v4_pre/yolov4-tiny.weights`

Modify Makefile content:

- GPU=1
CUDNN=1
CUDNN_HALF=1
OPENCV=1
AVX=0
OPENMP=0
LIBSO=1

Compiling the library:

- make

Test YoloV4 and YoloV4-tiny

- ./darknet detector demo cfg/coco.data cfg/yolov4.cfg yolov4.weights -c 0
- ./darknet detector demo cfg/coco.data cfg/yolov4-tiny.cfg yolov4-tiny.weights -c 0

General

Information about darknet

- <https://pjreddie.com/darknet/yolo/>

How to use Yolo

- <https://github.com/AlexeyAB/darknet#how-to-use-on-the-command-line>