**How to Setup YOLOv8 on Jetson Nano**

1. Follow the “Get Started with Jetson Nano Developer Kit” Instructions by NVIDIA.  
   Link: [Get Started With Jetson Nano Developer Kit | NVIDIA Developer](https://developer.nvidia.com/embedded/learn/get-started-jetson-nano-devkit)
2. Follow the below steps to set up the Python 3.8 environment

sudo apt update  
sudo apt upgrade  
sudo apt install build-essential libssl-dev zlib1g-dev libncurses5-dev libncursesw5-dev libreadline-dev libsqlite3-dev libgdbm-dev libdb5.3-dev libbz2-dev libexpat1-dev liblzma-dev libffi-dev libc6-dev  
  
wget https://www.python.org/ftp/python/3.8.12/Python-3.8.12.tar.xz  
  
tar -xf Python-3.8.12.tar.xz

cd Python-3.8.12

./configure –-enable-optimizations

make -j4

sudo make altinstall

python3.8 --version

cd ~

python3.8 -m venv myenv

source myenv/bin/activate

1. This is from the tutorial “Object Detection with Yolov8 using Jetson Nano” video posted by Code With Aarohi. Watch the video to learn how to install the YOLO libraries.  
   Link: [Object Detection with Yolov8 using Jetson Nano (youtube.com)](https://www.youtube.com/watch?v=pAEkHsNkul0)
2. Run the following commands/step through this tutorial to install necessary libraries to run YOLO using the GPU for faster, real-time detection.  
   Link: [Explains how to make YOLOv8 work with Jetson Nano | i7y blog](https://i7y.org/en/yolov8-on-jetson-nano/)

cd ultralytics

pip install -U pip wheel gdown

gdown https://drive.google.com/uc?id=1hs9HM0XJ2LPFghcn7ZMOs5qu5HexPXwM

gdown https://drive.google.com/uc?id=1m0d8ruUY8RvCP9eVjZw4Nc8LAwM8yuGV

python3.8 -m pip install torch-\*.whl torchvision-\*.whl

pip install .

1. Now you are ready to run YOLO from the command line. Run either of the following lines depending on your objective. Internet connection is necessary for first use. Remember to be in your activated Python 3.8 environment.

#Detect

yolo task=detect mode=predict model=yolov8n.pt source=0 show=True

#Segmentation

yolo task=segment mode=predict model=yolov8n-seg.pt source=0 show=True

1. To run the program from Jupyter Notebooks
   1. Run the following command to start Jupyter Notebook

jupyter notebook

* 1. From there, create a new notebook file. Below is the standard start to use real time detection from a Python file/notebook.

from ultralytics import YOLO

model = YOLO(“yolov8n.pt”)

results = model.predict(source=”0”, show=True)

print(results)

1. Other commands and resources to change your implementation can be found in the YOLO docs linked below.  
   Link: [Home - Ultralytics YOLOv8 Docs](https://docs.ultralytics.com/)