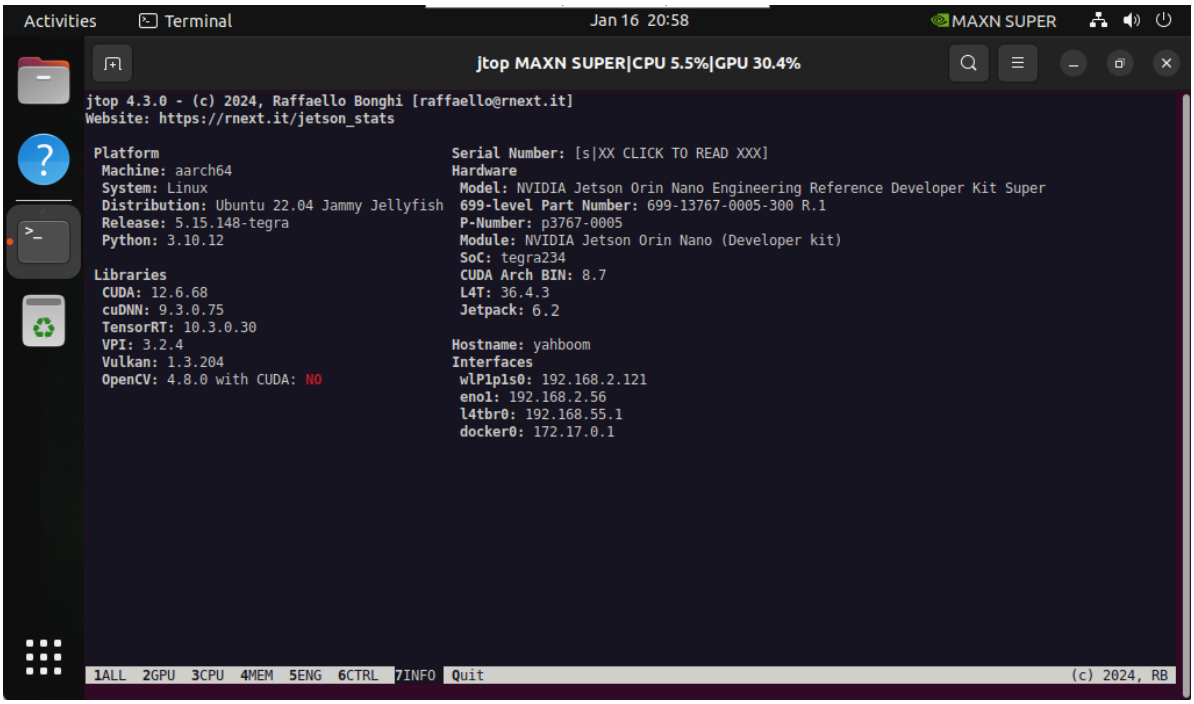
TensorFlow

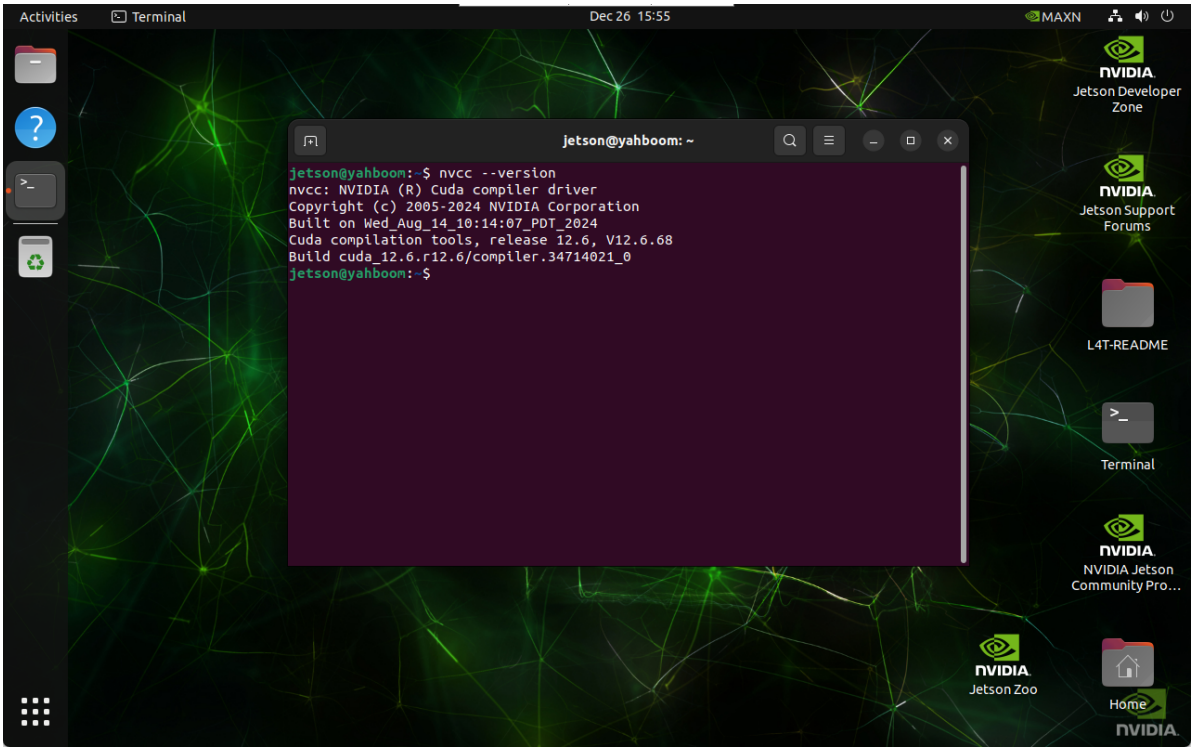
TensorFlow is an end-to-end machine learning and deep learning framework developed and open-sourced by Google, used to build and train various types of machine learning models.

1. System information



> **Query CUDA version**

```
nvcc --version
```



2. Install TensorFlow

To install TensorFlow, choose either offline or online!

2.1. Offline installation

Manually go to the download website to download the specified TensorFlow version.

Download URL: https://developer.download.nvidia.com/compute/redist/jp/v61/tensorflow/

```
cd Downloads/
```

```
sudo pip3 install tensorflow-2.16.1+nv24.08-cp310-cp310-linux_aarch64.whl
```

2.2, Online installation

```
sudo pip3 install --extra-index-url
https://developer.download.nvidia.com/compute/redist/jp/v61
tensorflow==2.16.1+nv24.08
```

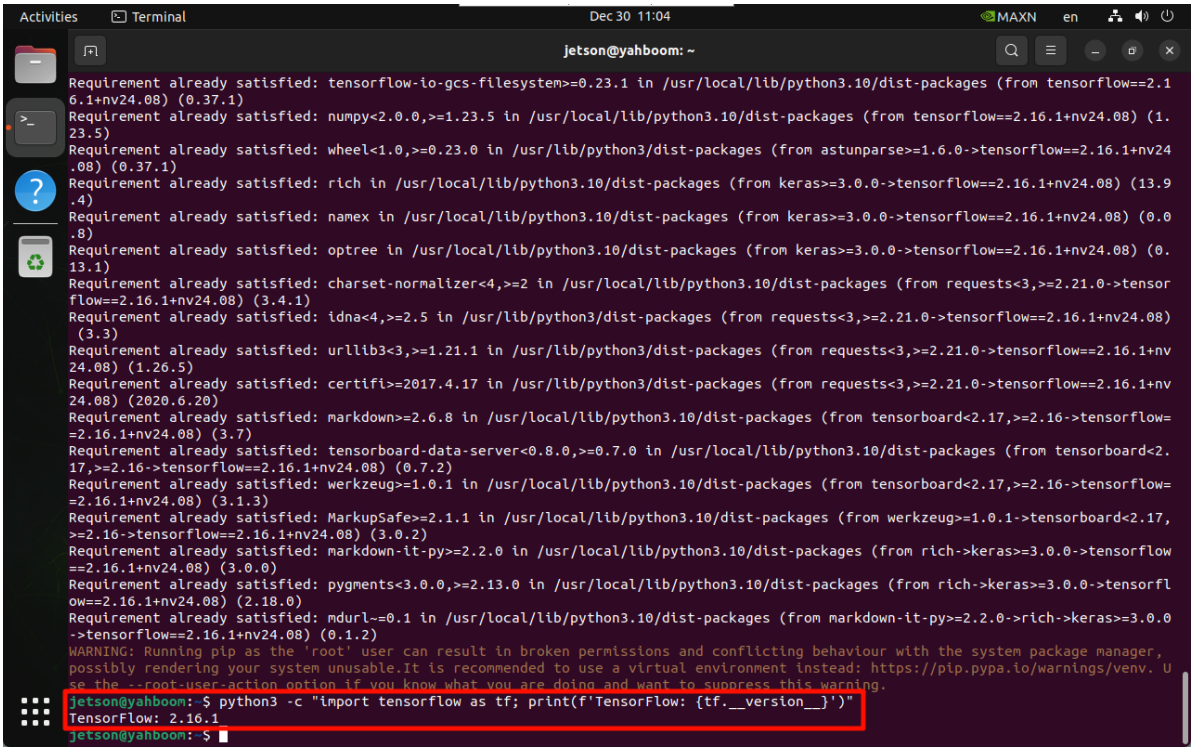
2.3, Install Numpy

Install the specified version of Numpy: the later YOLO11 also requires this version of Numpy

```
sudo pip install numpy==1.23.5
```

3. Verify installation

```
python3 -c "import tensorflow as tf; print(f'TensorFlow: {tf.__version__}')"
```



References

https://docs.nvidia.com/deeplearning/frameworks/install-tf-jetson-platform/index.html

https://pypi.jetson-ai-lab.dev/