**Unsloth setup for Mistral Fine-tune on WSL**

1. Requirements

* Create an environment in wsl and activate
* Install pytorch for linux ([PyTorch](https://pytorch.org/)) **: >**
  1. ***python3 –m pip install torch torchvision torchaudio --index-url*** [***https://download.pytorch.org/whl/cu121***](https://download.pytorch.org/whl/cu121)
* Install cuda toolkit (follow steps) : [CUDA Toolkit 12.5 Downloads | NVIDIA Developer](https://developer.nvidia.com/cuda-downloads?target_os=Linux&target_arch=x86_64&Distribution=WSL-Ubuntu&target_version=2.0&target_type=deb_local)
* Add path : >

1. sudo nano /etc/environment
2. add the line and save the file :> ***export PATH=/usr/local/cuda-12.5/bin:$PATH***

* Check nvcc version : > ***nvcc –version***
* Install unsloth ([pipinstallation](https://github.com/unslothai/unsloth%23pip-installation)) :>

1. ***pip install "unsloth[cu121-ampere-torch230] @ git+https://github.com/unslothai/unsloth.git"***

* Install xformers (only if there is a problem with xformers while installing unsloth):

1. ***python3 –m pip install*** [***https://huggingface.co/r4ziel/xformers\_pre\_built/resolve/main/triton-2.0.0-cp310-cp310-win\_amd64.whl***](https://huggingface.co/r4ziel/xformers_pre_built/resolve/main/triton-2.0.0-cp310-cp310-win_amd64.whl)

* Other requirements: requirements.txt – installable using pip

1. Download model : mistralai/Mistral-7B-v0.3

* download(manually) from huggingface : [mistralai/Mistral-7B-v0.3 at main (huggingface.co)](https://huggingface.co/mistralai/Mistral-7B-v0.3/tree/main)

1. Prepare Dataset

* Download dataset from huggingface: [STEM-AI-mtl/Electrical-engineering at main (huggingface.co)](https://huggingface.co/datasets/STEM-AI-mtl/Electrical-engineering/tree/main)

1. Convert the dataset into the required format for mistral fine-tuning, as shown in [prepare dataset](https://github.com/mistralai/mistral-finetune?tab=readme-ov-file#prepare-dataset)