# CARLA Setup for MAC

1. Download carla 0.9.12.targz from their github repository using
   wget https://tiny.carla.org/carla-0-9-12-linux

2. unzip the tar file using
   tar -xzvf filename

3. Install nvidia drivers, I used:
   sudo apt install nvidia-driver-535

4. Reboot once done with:
   sudo reboot

5. Verify driver installation with:
   Nvidia-smi

```
016730129@coe-cmpe-206-13:~$ nvidia-smi
Fri Nov  1 16:33:10 2024
+---------------------------------------------------------------------------------------+
| NVIDIA-SMI 535.183.01             Driver Version: 535.183.01   CUDA Version: 12.2     |
|-----------------------------------------+----------------------+----------------------+
| 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 RTX 2080 ...    Off | 00000000:01:00.0  On |                  N/A |
| 18%   54C    P0              46W / 250W |     51MiB /  8192MiB |      0%      Default |
|                                         |                      |                  N/A |
+-----------------------------------------+----------------------+----------------------+

+---------------------------------------------------------------------------------------+
| Processes:                                                                            |
|  GPU   GI   CI        PID   Type   Process name                            GPU Memory |
|        ID   ID                                                             Usage      |
|=======================================================================================|
|    0   N/A  N/A      1018      G   /usr/lib/xorg/Xorg                           49MiB |
+---------------------------------------------------------------------------------------+
```

6. Install vulkantools with
   sudo apt-get install vulkan-tools

7. Download and Install XQuartz: https://www.xquartz.org/

8. From XQuartz ssh into the VM with ssh -X <studentid>:host

9. Export display port with
   export DISPLAY=:0

10. Export XDG_RUNTIME with
    export XDG_RUNTIME_DIR=/run/user/$(id -u)

11. Check if there are any errors using
    vulkaninfo

12. Add user mod to render with
    sudo usermod -aG render $USER

13. If no render group add it with
    newgrp render

14. Run carla with
    ./CarlaUE4.sh -vulkan

15. If it says cannot access display try running
    xhost +local:root

16. If it still doesnt work try
    export DISPLAY=localhost:10.0

If you pip install carla -> pip uninstall carla
Assuming carla was installed and unzipped in home directory
Cd ./PythonAPI/carla/dist
python -m easy_install carla-0.9.12-py3.7-linux-x86_64.egg
pip install networkx==2.6

Top of any file using agents
sys.path.append('/home/015041195@SJSUAD/PythonAPI/carla')
sys.path.append('/home/015041195@SJSUAD/PythonAPI/carla/agents')