ROS-Nour Face Detection

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The Link of the code folder:
https://drive.google.com/drive/folders/1dinGb4R1yT7hjfW5pLl2vm-dc8N2t4f0?usp=sharing

User Manual:

1. First, install Ubuntu 20.04 (Focal Fossa).
2. Open terminal.
3. Install Noetic Ros:

   a. Set up your sources.list:

   ```
   sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu focal
   main" > /etc/apt/sources.list.d/ros-latest.list'
   ```

   b. Set up the keys:

   ```
   curl -s
   https://raw.githubusercontent.com/ros/rosdistro/master/ros.asc
   | sudo apt-key add -
   ```

   c. Update the package lists:

   ```
   sudo apt update
   ```

   d. Install ROS Noetic Desktop-Full:

   ```
   sudo apt install ros-noetic-desktop-full
   ```

   e. Initialize rosdep:

   ```
   sudo rosdep init
   rosdep update
   ```

   f. Set up the ROS environment variables:

   ```
   echo "source /opt/ros/noetic/setup.bash" >> ~/.bashrc
   source ~/.bashrc
   ```

   g. Install additional dependencies (if needed):

   ```
   sudo apt install python3-rosinstall
   python3-rosinstall-generator python3-wstool build-essential
   ```

   h. That's it! ROS Noetic should now be installed on your Ubuntu
      20.04 system. You can verify the installation by running the
      following command:

   ```
   rosversion -d
   ```

(follow the installation instructions on wikiros from this [hyperlink](#) for more elaboration).

4. Write the following command:

   ```
   printenv | grep ROS

   source /opt/ros/noetic/setup.bash
   ```

5. Create a catkin workspace:
   a. mkdir -p ~/catkin_ws/src
   b. cd ~/catkin_ws/
   c. Catkin_make
   d. source devel/setup.bash
6. Download the face recognition code [from this drive link](#).
7. Move the ".deepface" to the "home" directory on your device.
8. Create a catkin package for our code:
   a. cd ~/catkin_ws/src
   b. catkin_create_pkg cam_pub std_msgs rospy
   c. cd ~/catkin_ws
   d. catkin_make
   e. Source devel/setup.bash
   f. cd ~/catkin_ws/cam_pub
   g. mkdir scripts
9. Copy the code you have downloaded in step 6 to the "scripts" folder you just created in catkin_ws/cam_pub folder
10. On the same terminal you have opened, write:
   a. cd ~/catkin_ws/cam_pub/scripts
   b. Pip install -r requirements.txt
   c. Python3 CamPub.py