

Project Manual for Mouse Controlling using Facial Gestures

Procedure

- The folder contains “Face Detection.ipynb” file which is main file to be run. (Use Anaconda Jupyter to run the program).
- It uses various python packages, which need to be installed prior.
 - Imutils
 - Open CV
 - Dlib
 - Pyautogui
 - Utils
 - Scipy
 - Time
 - Import_ipynb
- After installing all the packages in conda environment, Run “*Face Detection.ipynb*”.
- It requires a pre-trained face landmark model, available in folder “*shape_predictor_68_face_landmarks.dat*”
- After running the file, the webcam starts taking real-time video, which serves as input for the project.
- Use facial gestures mentioned for controlling mouse like,
 - Use head movement for moving cursor pointer
 - Use open mouth for left click invocation
 - Use eye blink for right click invocation
 - Use smile for activating and deactivating the scroll.
- The output of the project is real-time, allowing the user to access the system/mouse without using hands.
- There’s a demo video available in the folder.

These are the steps to run “Mouse Controlling using Facial Gestures”