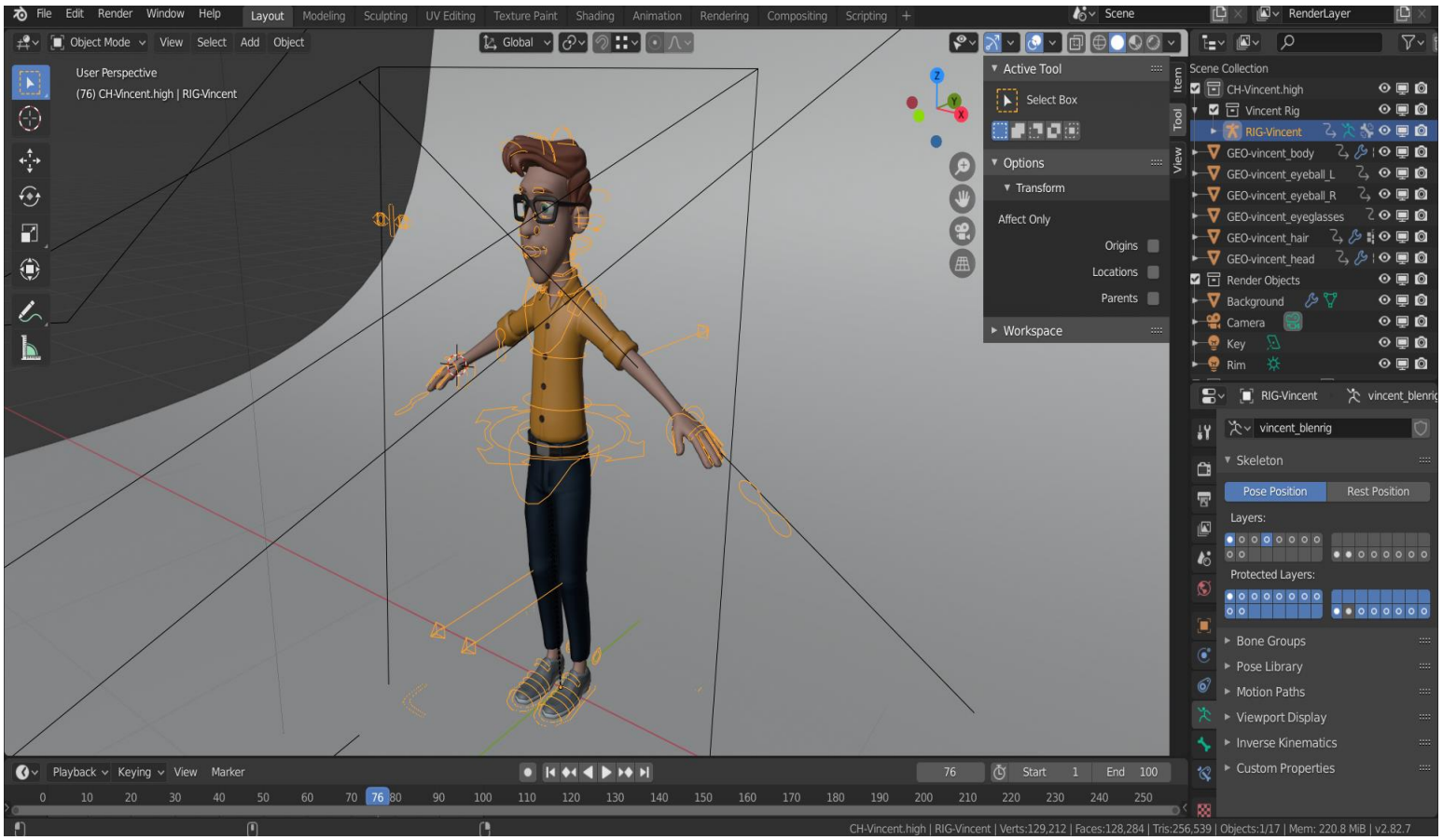
Procedure for Face mesh: -

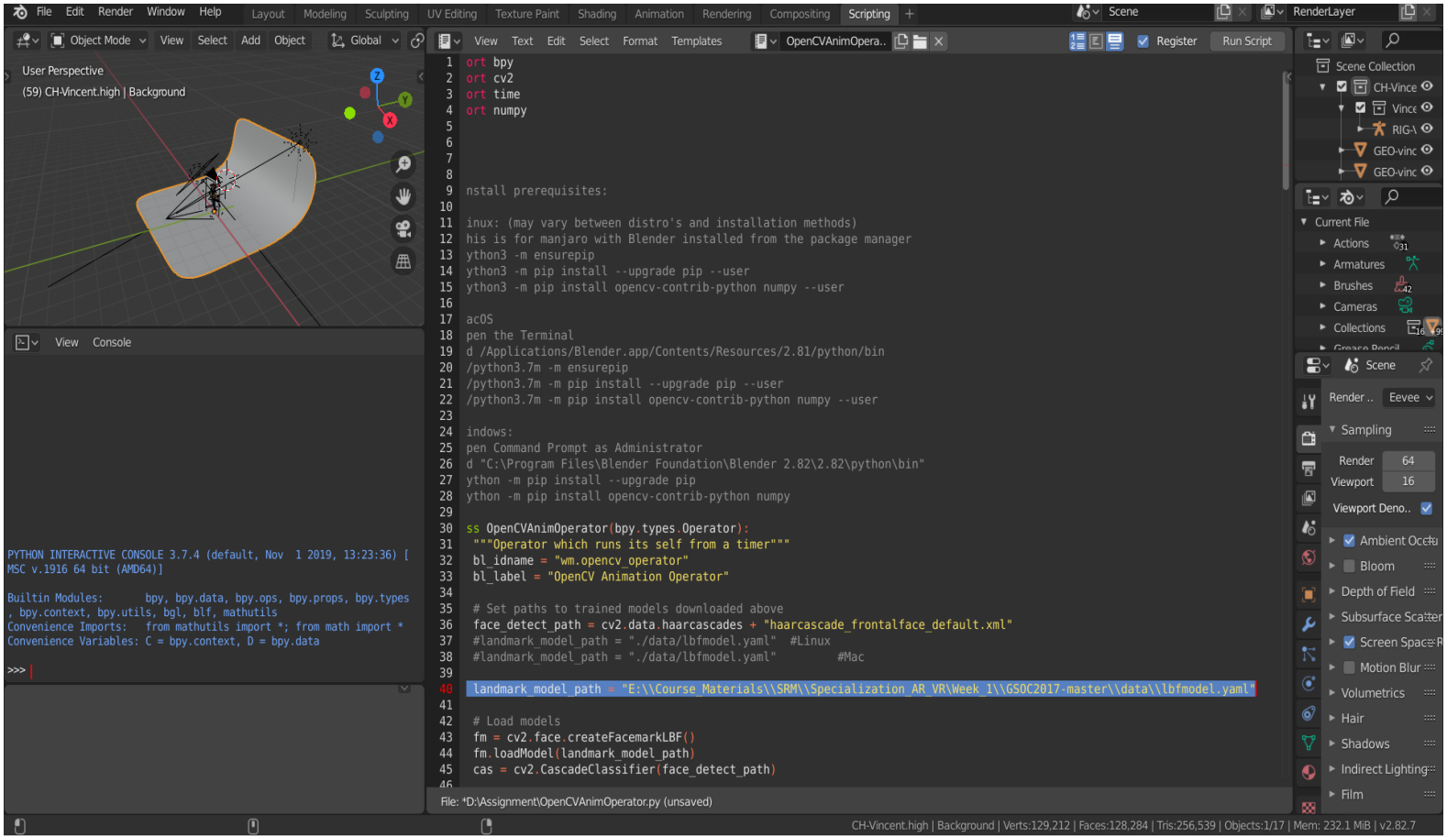
1. Download and Install Blender 2.8 from software requirement file.
2. Download both Animation file and the AI model (link in software requirement file) and extract it.
3. Open the Animation file which contain Vincent Character Animation file. Open vincent.blend file that will open Vincent Character Animation file in blender.



4. In order to download the python scripts necessary to run the AI model, simply clone this Repo using the command **git clone https://github.com/Shreyanshsachan/Face-Mesh-Using-Blender-Vincent-Character.git** from your command prompt.
5. Now again open the command prompt and run as administrator and enter these 3 commands: -
   (i) cd D:\program files\Blender 2.82\2.82\python\bin
   (ii) python -m pip install --upgrade pip
   (iii) python -m pip install opencv-contrib-python numpy

```
Command Prompt
Microsoft Windows [Version 10.0.22000.434]
(c) Microsoft Corporation. All rights reserved.

C:\Users\acer>D:

D:\>cd D:\program files\Blender 2.82\2.82\python\bin

D:\program files\Blender 2.82\2.82\python\bin>python -m pip install --upgrade pip
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: pip in d:\program files\blender 2.82\2.82\python\lib\site-packages (22.0.3)

D:\program files\Blender 2.82\2.82\python\bin>python -m pip install opencv-contrib-python numpy
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: opencv-contrib-python in d:\program files\blender 2.82\2.82\python\lib\site-packages (4.5.5.62)
Requirement already satisfied: numpy in d:\program files\blender 2.82\2.82\python\lib\site-packages (1.17.0)

D:\program files\Blender 2.82\2.82\python\bin>
```

6. Then open vincent.blend and click on Scripting tab to open the code editor.
7. Go to Text->New to create a new empty file and open OpenCVAnim.py file
8. Imprint the code of OpenCVAnim.py file to the blender code editor and rename the editor file to the original filename as OpenCVAnim.py. Save this and then click on Run Script.
9. Again, create a new empty file and copy the contents of OpenCVAnimOperator.py file and rename the editor file as OpenCVAnim.py in code editor.
10. Before saving this and running, don't forget to change the AI model file path which can be changed in the landmark_model_path variable as given in line 40 below...



11. The AI model will contain a file lbfmodel.yaml which will be present in the AI model file, so copy the path of this file and paste it in landmark_model_path variable.
12. The save the file and tick the register option and Run script. After this, click on layout tap which will zoom in the animation.
13. You can see an option in left hand side called OpenCV Animation. Click on it you will see capture option on the right as given below

14. By clicking on capture the video camera will be opened and it will be in use.
15. Bravo!! You are ready to mimic Vincent Animation automatically using facemesh.