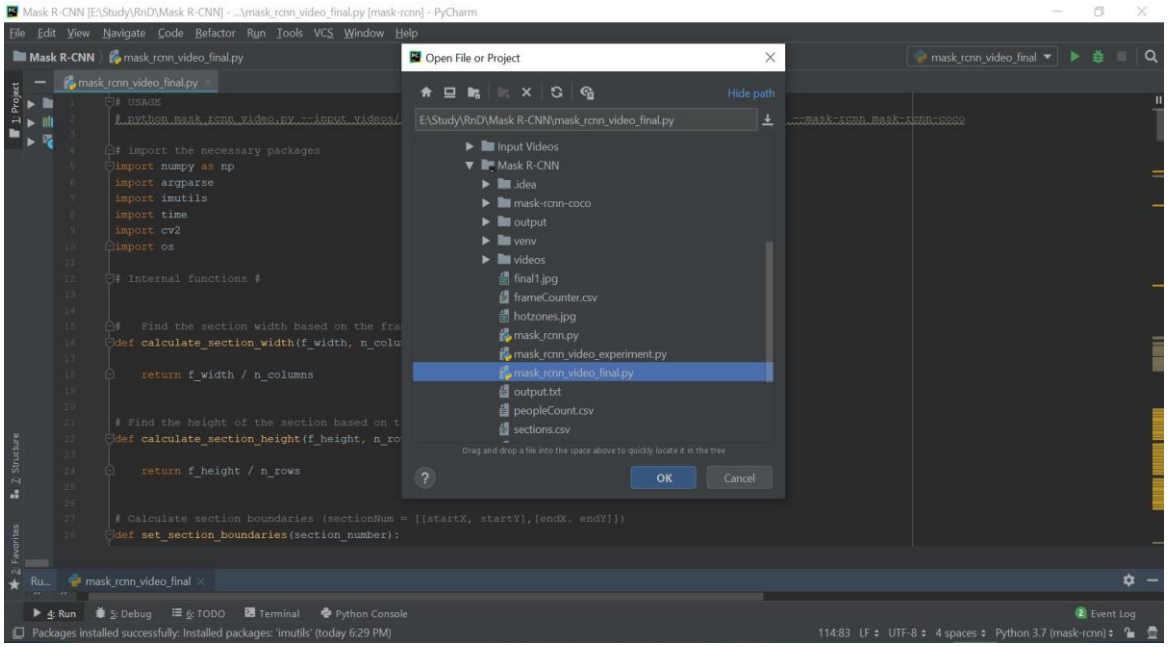
How To Run Mask R-CNN People Detection
and Tracking in PyCharm

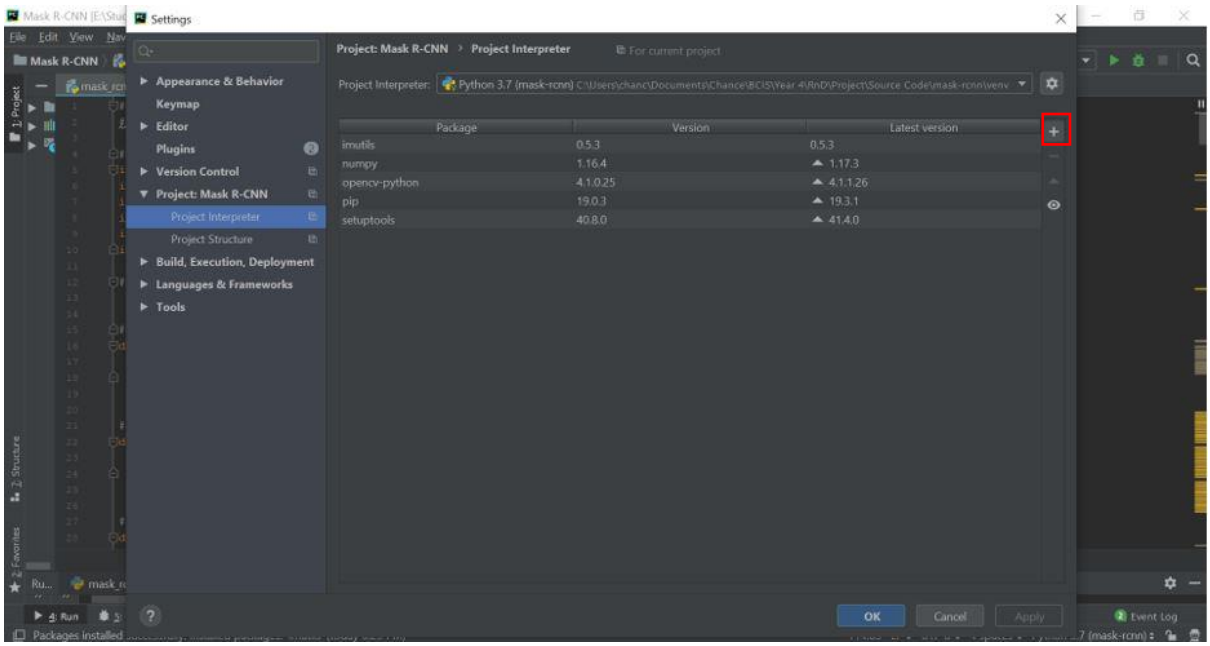
1. Install PyCharm from https://www.jetbrains.com/pycharm/

2. Open PyCharm settings (File->Settings OR Ctrl + Alt + S) and configure the PyCharm system interpreter to version 3.7
https://www.jetbrains.com/help/pycharm/configuring-local-python-interpreters.html

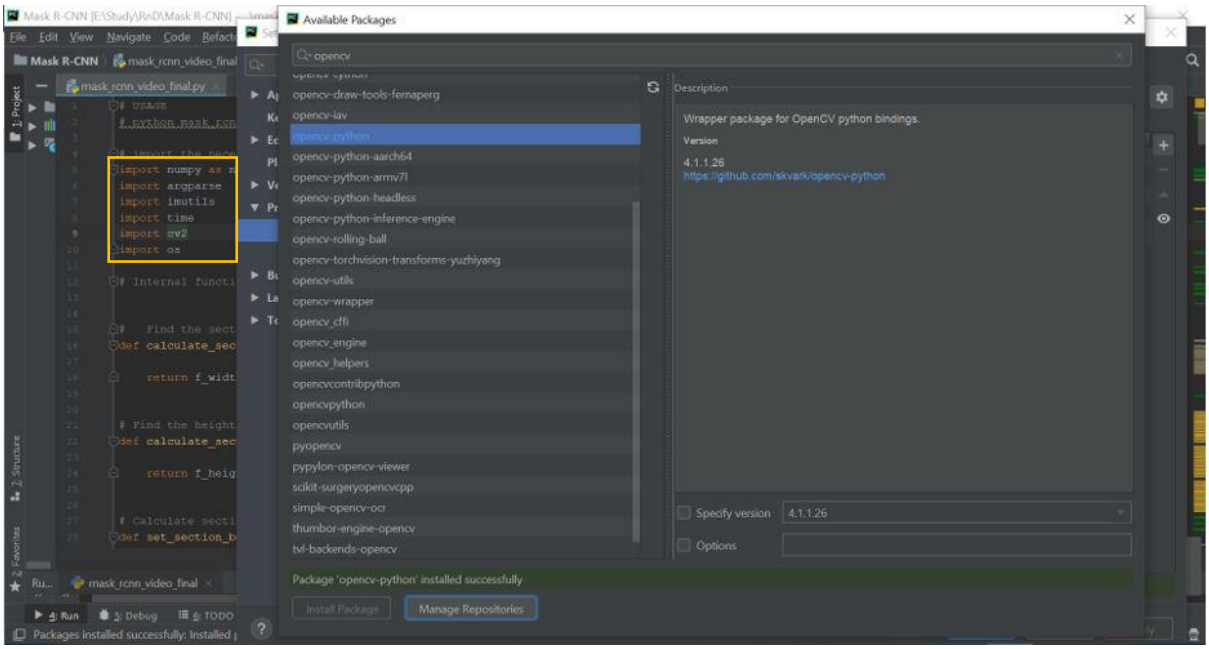
3. Open the mask_rcnn_video_final.py script within PyCharm (File -> Open File)



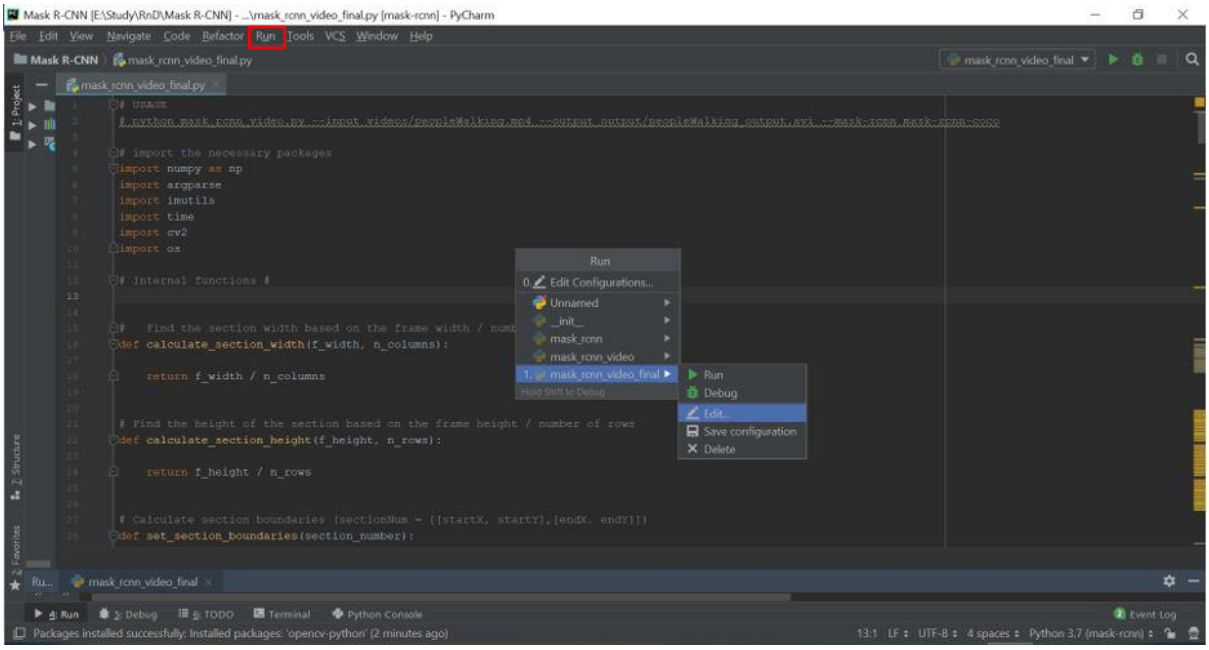
4. Open PyCharm settings again (Ctrl + Alt + S), navigate to the project interpreter and click on the PLUS symbol located on the top right corner of the settings window highlighted by a red box in the image below:



5. Type in the name of the package required, search through the list displayed, click on the package and then click Install Package at the bottom of the window (PyCharm will identify which packages are needed from the import list highlighted in orange). Please note cv2 is named opencv-python in the package install window as shown below:



6. Open the run configuration menu (shortcut: Alt + Shift + F10), click on the arrow next to mask_rcnn_video_final then click Edit as shown below:



7. Copy line 2 from - - input to the end of the line as shown below

```
--input videos/peopleWalking.mp4 --output output/peopleWalking_output.avi --mask-rcnn mask-rcnn-coco
```

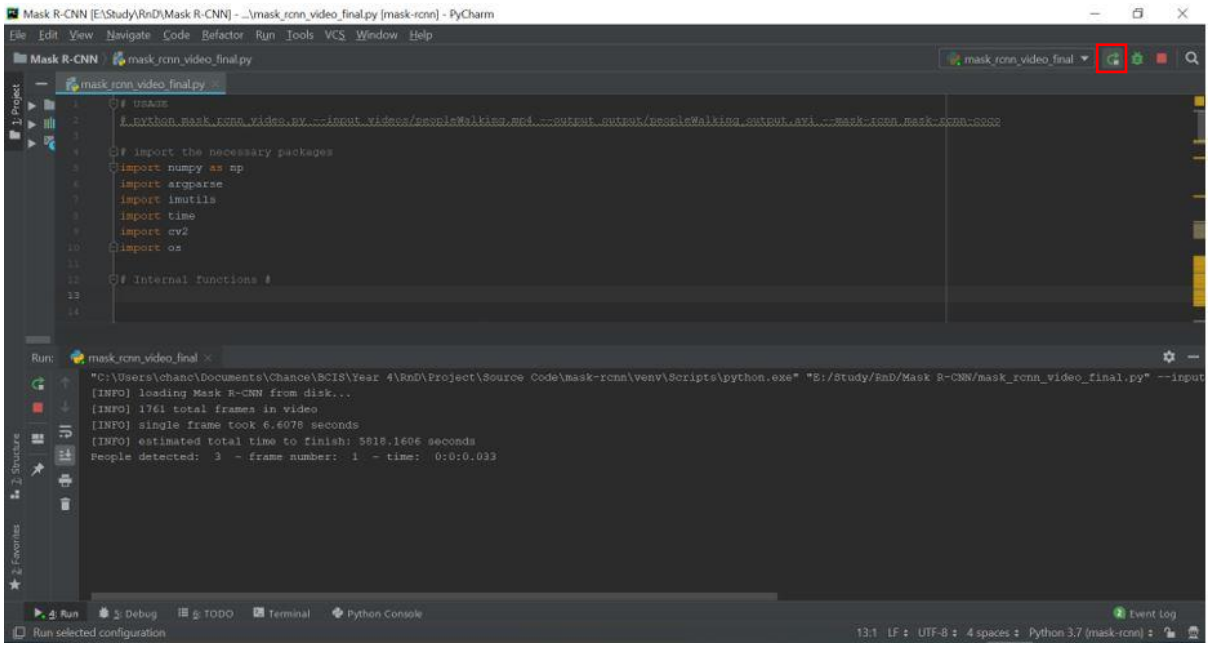
8. Enter the name and file extension of your input video like below
   - - input videos/The_Name_Of_Your_Video.extension

   Ensure your file name is correct and that the input video is inside the videos folder, works with .mov, .avi and .mp4

9. Enter a name for the output video like below
   - - output output/The_Name_Of_Your_Output_Video.extension

   Please use either mp4 or avi for the output file extension

10. Click run (highlighted in a red box) and let the program do its thing



You will see output in the pycharm output window that says:

[INFO] loading Mask R-CNN from disk…

The program will then read in how many frames the video has, it will give an approximate processing time in seconds and proceed with people detection and tracking.

Marker coordinates are output to a file called output.txt and other information is output to separate csv files.