24/11/2024 Irene Burri, GitHub repository: https://github.com/ireneburri/ComputerVision.git

Assignment 1

Questions and Answers:

1. The processing time for one video frame or image:
    - The average processing time is 30ms but I've noticed that when there are big movements in the scene the processing time increases.

      Examples of processing times without much movement (in ms):

      27.40311622619629

      33.38623046875

      33.73837471008301

      28.25927734375

      32.119035720825195

      35.07041931152344
2. How does the processing time change when you add the bright spot detection?
    - It remains pretty much the same, I didn't notice any big difference.
3. Is the processing time identical when you do not display the image?
    - Yes, it remains pretty much identical
4. How does your for-loop implementation compare to the built-in function?
    - It is way slower, going from 30 FPS to 1-2 FPS
5. Moving your hand in front of the camera, estimate the latency between image capture and display:
    - It is really small but you can notice some peaks, such as (in seconds):

      0.04887819290161133

      0.012323141098022461

      0.017754793167114258

      0.03225541114807129

      0.06514978408813477

      0.027096271514892578
6. Is the latency different when capturing from a mobile phone?
    - The trend is the same of the computer camera (in seconds):

      0.05127692222595215

      0.01605987548828125

      0.029509544372558594

      0.05564761161804199

      0.018413782119750977

      0.029684782028198242

      0.04892849922180176