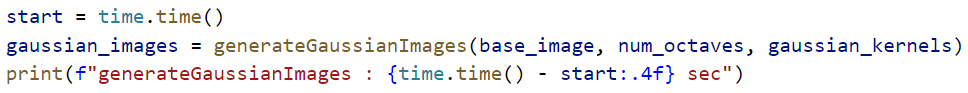
컴퓨터비전 project 3

20171693 조병화

**Check the attached SIFT program, analyze computation times of the functions in computeKeypointsAndDescriptors().**

**For the most slow function, explain how you can speed it up. Describe your answer in about half a page.**

At main function, it calls all functions that are used to make SIFT program to run. So I checked time for each function calls like this.



So as a result, I concluded that the most slow function was ‘generateDescriptors’ and next was ‘findScaleSpaceExtrema’ functions.

To speed up, I tried changing some variables in functions. Firstly, I changed the threshold value in findScaleSpaceExtrema. I found that increasing the value of threshold reduced the number of calculations so the time reduced remarkably. But by reducing the points to calculate, the accuracy of SIFT program decreased too. There happened the tradeoff between time and accuracy.

Similarly, I changed the ‘scale multiplier variable in generateDescriptors too. by decreasing that variable, it reduced the time a lot but the accuracy decreased. Changing value of ‘window\_width’ had the same result too. Time has changed, accuracy decreased.