Introduction to Computer Vision: Assignment 3: Mean-shift

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Question 3

Decreasing r increases the runtime of the program, since there are more different peaks to be reached and hence more paths to be computed. Increasing c causes less points to be incorporated into existing search paths, and so increases the runtime as well.

As for the visual quality of the images, smaller values of r yield more peaks and thus more different colors, whereas higher values of r diminish the number of different images, and might even yield only one single peak, which completely destroys the image (as in the sheep images for r=20). Changing c affects the peak to which each point maps; higher values of c merge less points, and make the image crisper.