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Intro to Connectomics

Adding a feature is like giving the computer new ways to describe the image. Depending on how specific the details used to describe the synapse, the more efficient the computer gets at finding the specific image or in this case a synapse. It was difficult to tell what features would improve the f1 score other than just simple guess and check. After many features were added I ended up with three that gave me an f1 score of .84. These were corner_kitchen_rosenfeld, corner_shi_tomasi and structure_tensor. For the corner_kitchen_rosenfeld, it detects the corners in an image by detecting varying brightness. The corner_shi_tomasi does something similar by using information from the auto-correlation matrix. Lastly, the structure_tensor seems to tell the computer about the gradient of the function or image.