CSCE 5703: Computer Vision
Homework 2
Due: March 07, 2022
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1.1 The value of σ_x affects the amount of blurring. A larger σ_x results in better noise filtering but at the same time loses important edge information, which affects the performance of an edge detector. If a small filter is used, there is likely to be more noise due to insufficient averaging.

$\sigma_{\sigma'}$ is the size of neighborhood considered for corner detection. Thus, it determines the neighborhood size to be used around each pixel.

k is an empirically determined constant. *k* is the sensitivity factor to separate corners from edges, typically a value close to zero. Small values of *k* result in detection of sharp corners, and higher *k* results in smaller *R*. Thus *R* is larger for corner; *R* is negative with large magnitude for an edge; and *R* is small for a flat area.