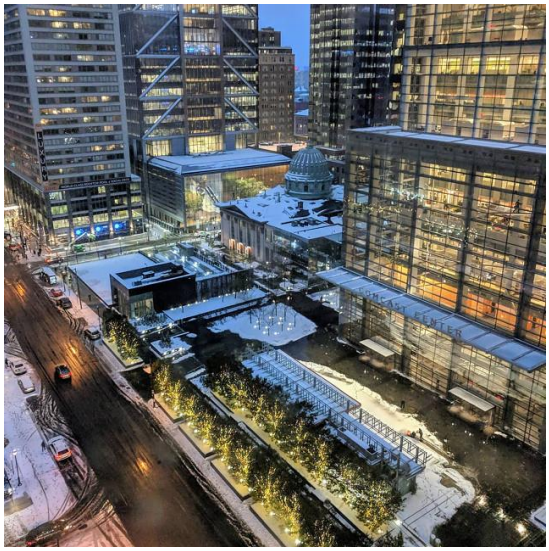
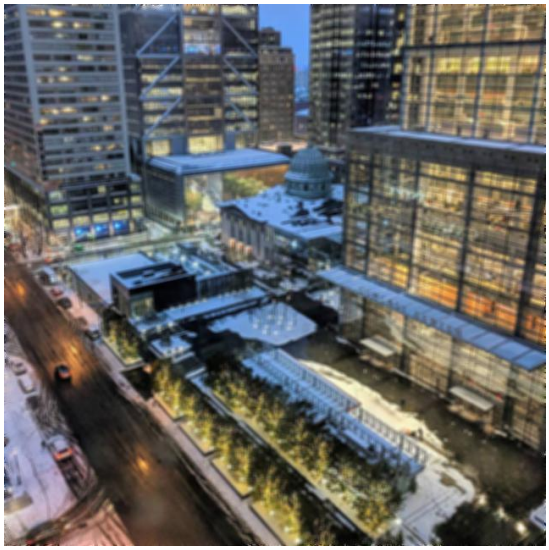
This file contains the description of my experiments and results while creating the Gaussian Blur:

Original Picture:

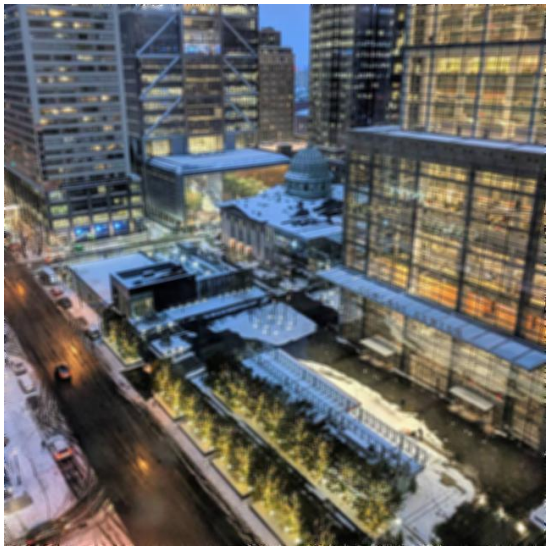


Images that I get on applying different parameters:

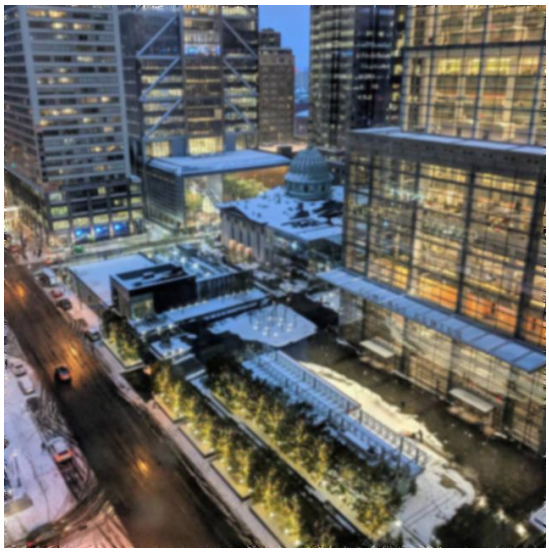
1. k = 5, sigma = 5



2. k = 5, sigma = 11



3. k = 7, sigma = 2



I think my code works just fine. I did face some errors initially because of syntax errors as I am new to python but I was able to solve them with the help of google.

Similarly, I am also new to numpy, so I struggled with a bit but I managed with the resources provided by the professor. It just took me a little more time to complete the assignment since I am not well-versed with Python.

Extra Credit:

1. I did the grayscale and transparency extra credit part and it works. For the grayscale image, I first check if the image has only 1 channel. If so, I do not split the image into r,g,b channels and continue with the gaussian kernel. For transparency, I check if the image has four channels and according do 4 operations for each split, merge and convolution part.

2. For the second part, I tried using separable kernels by taking the first and the second row of the kernel as separate kernels and multiplied the image to get the blurred image. As results, I do get a blurred image but, it turns out to be a bit darker than the original image. I am pretty sure that my method needs some improvement. I think I could do it given more time.