SE-355 Computer Vision - Assignment 1
Image Filtering

Spring 2022

Assigned	Thursday, April 14, 2022
Due	Sunday, April 17, 2022 before 11:00 pm

Total Marks: 40

Write a function convolution (image, kernel) that has arguments

1. Image f (may be of varying sizes)
2. Kernel h (again, you should allow varying size kernels)

The output of the function, should be the convolution of f with h. Display and save results on the following kernels, using the provided image (book.png)

(a) Smoothing kernel (3×3, 5×5 and 7×7)

(b) Sharpening kernel (3×3)

Make sure to handle boundary cases according to kernel size.

Note: You cannot use any built-in function for convolution.

Submission Guideline:
Submit your Python code file along with 4 convolution output images as a zip file named as YourRollNumber_A1.zip