Computer Vision 2017FALL HW#5 R05525130 曹珉齊

Python

Import numpy opencv(for reading and writing)

輸入為為lena.bmp



所用的kernel為octogonal 3-5-5-5-3 kernel 如下

[0,1,1,1,0

1,1,1,1,1

1,1,1,1,1

1,1,1,1,1

0,1,1,1,0]

1. Dilation

與作業4幾乎相同，只多加了一行判斷是否為local maximum

for ki in range(kW):

for kj in range(kH):

if kernel[kj,ki] != 0:

if i\_dia[j-kH/2+kj, i-kW/2+ki] < img[j,i]:

i\_dia[j-kH/2+kj, i-kW/2+ki] = img[j,i]



1. Erosion

與作業4幾乎相同，多加了判斷是否為local minimum

local\_min = 255

for ki in range(kW)

for kj in range(kH)

if kernel[kj,ki] != 0:

if img[j-kH/2+kj, i-kW/2+ki] < local\_min:

local\_min = img[j-kH/2+kj, i-kW/2+ki]

i\_ero[j,i] = local\_min



1. Opening

如講義所說對原圖先作erosion再做dilation即可，與作業四一樣



1. Closing

如講義所說對原圖先做dilation再做erosion即可，與作業四一樣

