

UNIVERSITY OF TEXAS AT ARLINGTON

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COMPUTER VISION

ASSIGNMENT 3

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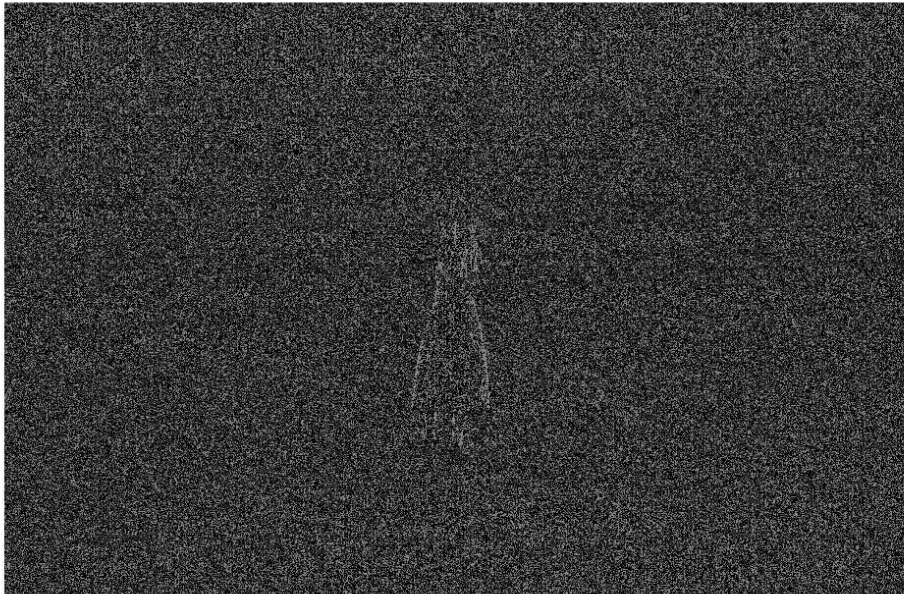
1001733394

Problem 1a

Input Image



gradient direction



roberts filter



after thresholding roberts

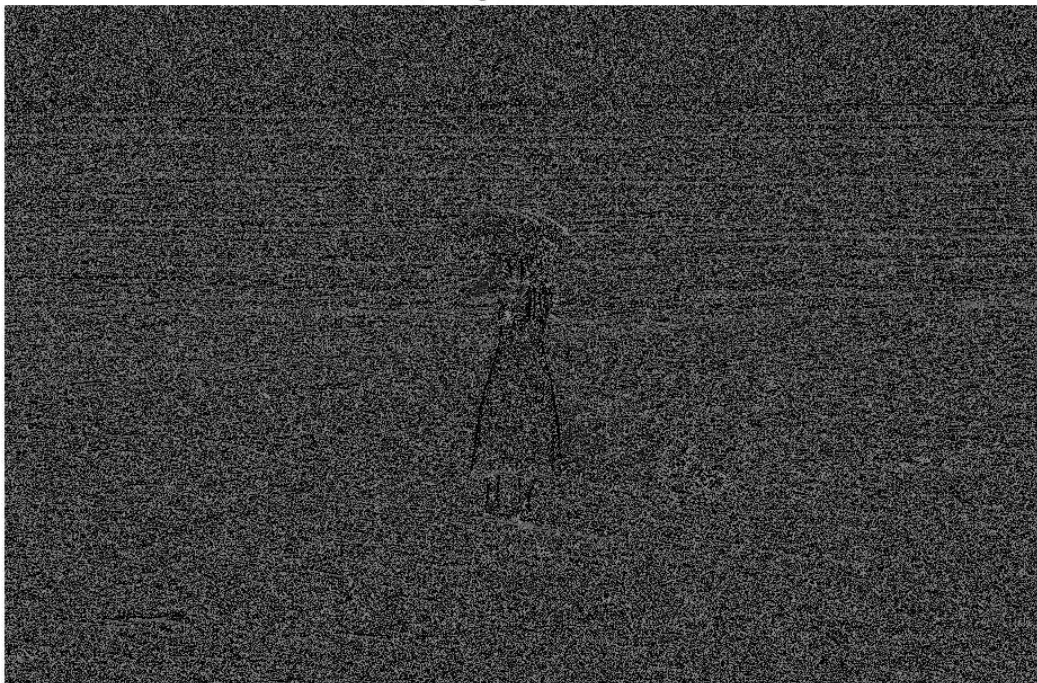


Problem 1b

Input Image



SOBEL gradient direction



Sobel filter



After threshold Sobel edge detection



Applying sobel filter with 1/8 weight matrix

filtered image



After threshold edge detection

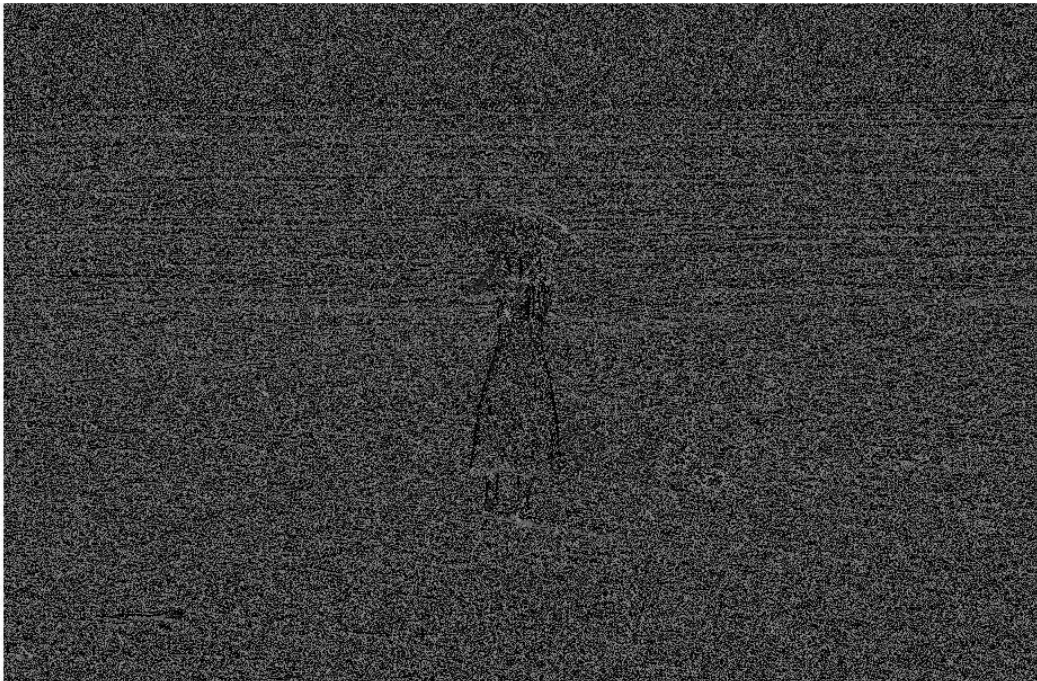


Problem 1c

Input Image



gradient direction



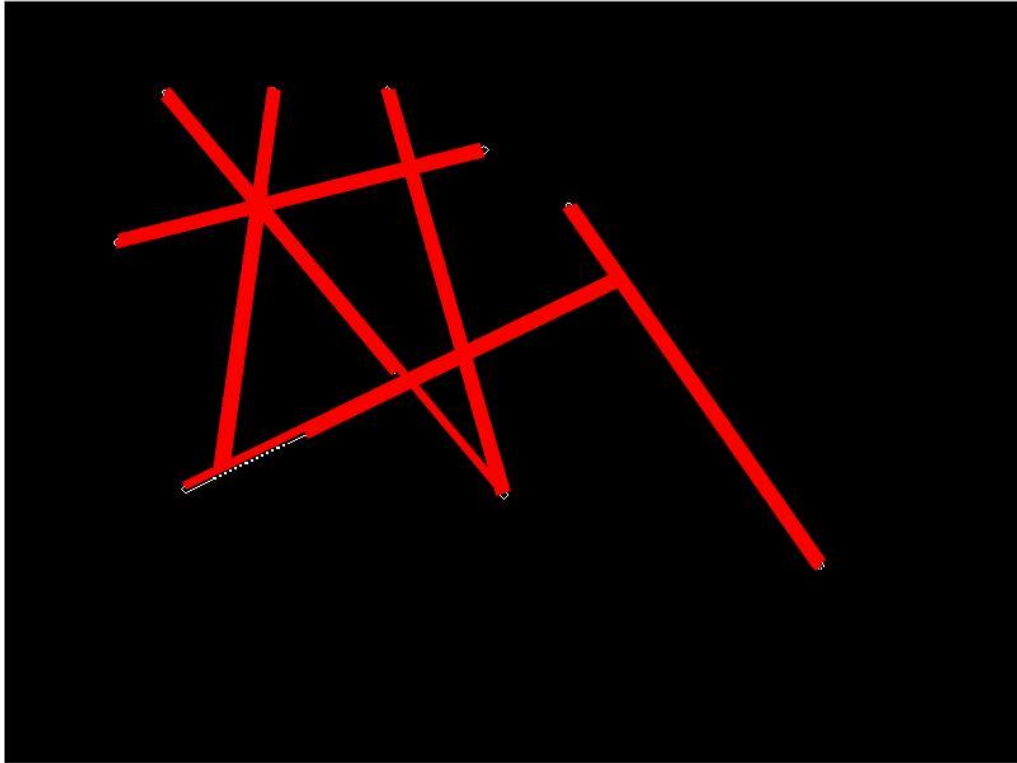
prewitt filter



After threshold prewitt edge detection



Problem 2



Extra Credit

Original Image



Thresholded Image with $k = 163$

