Assignment 5

Due by November 21, 2019

This project is to develop and/or implement image preprocessing operations: (i) thinning a binary image to get a skeleton, (ii) getting a shape boundary of a single object from a binary image, and (iii) extracting the silhouette of a gray image by edge dection. Many image applications, including fingerprint verification, vehicle industry parts recognition, better visualization of arts and etc. may adopt some of the above three operations.

You are asked to report the aforementioned experimental results on the following images stored in the "unsigned char" raw image format with the raster-scanned order.

(a) 100×100 ker.raw

(b) 100×100 ler.raw

(c) 100×100 per.raw

(d) 100×100 ter.raw

(e) 512×512 lenna.raw (for silhouette only)

You are supposed to do binary segmation on the above images before you implement the assigned operations (i) and (ii).

You only have to turn in *image display* of your results associated with the original images together with some minor interpretations, for example, the algorithms you used in each operation and the program languages or software tools you used to complete your work. It is not necessary to list your codes.