IN5520 - 2021

Exercises on texture

Use images from
http://www.uio.no/studier/emner/matnat/ifi/in5520/h21/undervisningsmateriale/images/

The images zebra_1.tif, zebra_2.tif ... zebra_6.tif contain some
fine specimens of a particularly textured herbivore.
We will try to implement a zebra-detector by analyzing texture.

Task 1:
First, try to implement your own GLCM function that takes as input an image window and number of image greyscales and outputs a cooccurence matrix.
Derive variance, contrast and entropy from the GLCM of a sliding window at a suitable size.

Task 2:
Try to use a simple tresholding of these features to mask out the zebras in the images.

Task 3:
Then compare your result with the first order texture measures: variance and entropy by using the Matlab functions: stdfilt and entropyfilt.(You can easily implement them from scratch too)

Happy zebra hunting!