

Pattern Recognition

Lecture 12. Programming Exercises

Dr. Shanshan ZHAO

`shanshan.zhao@xjtlu.edu.cn`

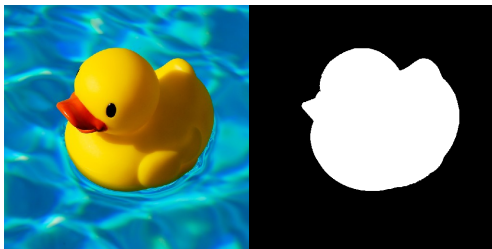
School of AI and Advanced Computing
Xi'an Jiaotong-Liverpool University

Academic Year 2021-2022

Exercise 1

Find the duck

hint: operate in RGB color space by thresholding on the channel that could separate the foreground and background



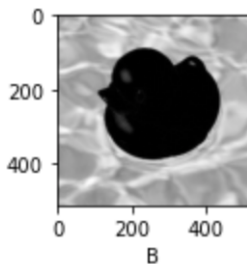
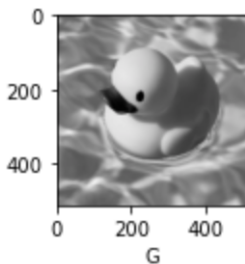
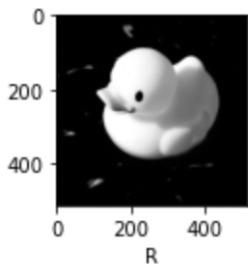
(a)

(b)

Exercise 1

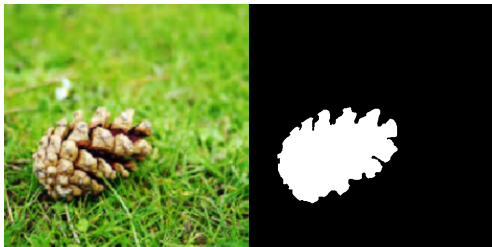
Find the duck

hint: operate in RGB color space by thresholding on the channel that could separate the foreground and background



Exercise 2

Find the pine hint: Likewise, use thresholding in color space, RGB and HSV



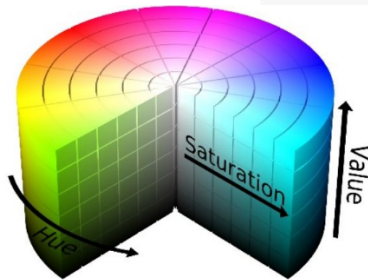
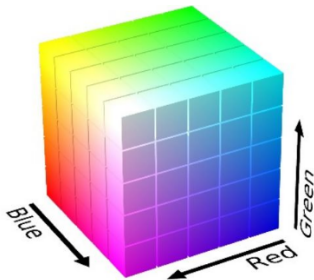
(c)

(d)

Exercise 2

Find the pine

hint: Likewise, use thresholding in color space, RGB and HSV

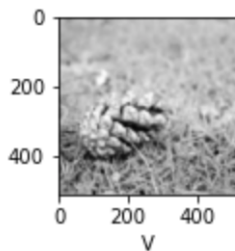
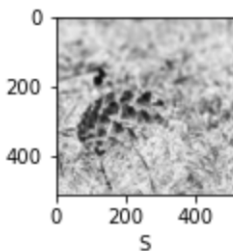
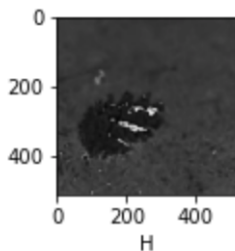
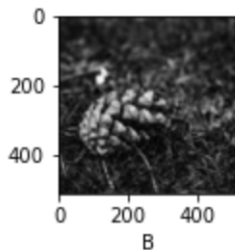
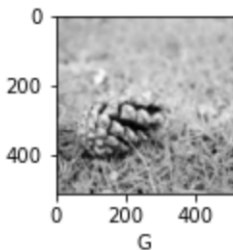
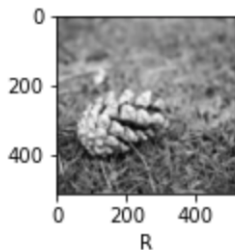


1. https://scikit-image.org/docs/dev/auto_examples/color_exposure/plot_rgb_to_hsv.html
2. https://docs.opencv.org/4.x/d9d/tutorial_py_colorspaces.html
3. Pillow method `Image.convert()`

Exercise 2

Find the pine

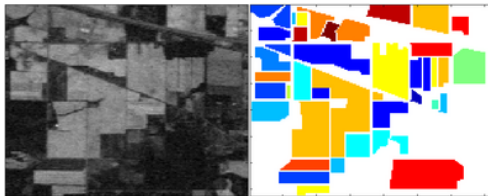
hint: Likewise, use thresholding in color space, RGB and HSV



Exercise 3

Investigate the remote sensing image

http://www.ehu.es/ccwintco/index.php/Hyperspectral_Remote_Sensing_Scenes#Indian_Pines



Reference I



Thank You !
Q & A