



YILDIZ TECHNICAL UNIVERSITY
FACULTY OF EEE / DEPARTMENT OF BIOMEDICAL ENGINEERING 2022/2023 FALL

Question	1	Total
Grade		100
MUDEK Criteria	3,4	

Name-Surname:	Student ID:			Signature:	
Course Name: BME4120 Biomedical Image Processing					
Group:	Midterm 1	Midterm 2	Final	Homework 3	Make-up
Lecturer's Title, Full Name: Prof. Taylan Yetkin					

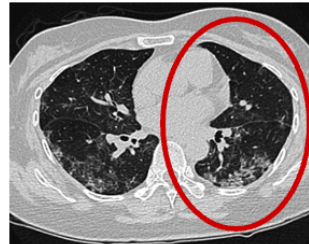
By signing above:
I testify to no copy-and-paste, paraphrase, over-quote, and screenshot.
I understand the ZERO-TOLERANCE POLICY for plagiarism.

IMPORTANT:

1. You must use Python and Scikit-Image.
2. Add your identification information, signature above, and attach your python code to this sheet.
3. Your code should be tested and bug free. (Must produce the result without any error message)
4. Your code should be printed and returned to me on 7th December on paper.
5. HW returns must be made just before the class hour 11:00am. (You may return before that if you want.)
6. HW returns with emails will not be accepted.

QUESTION

Use a chest image (1-s2.0-S0929664620300449-gr3_lrg-c.jpg given in Ref. [1]) and by using Python and scikit-image package and examples as given in Ref. [2] and Ref. [3] Find contour on the right side of the chest image as indicated with red circle.



References:

[1] Dataset explanation is given here:
<https://arxiv.org/abs/2003.11597>

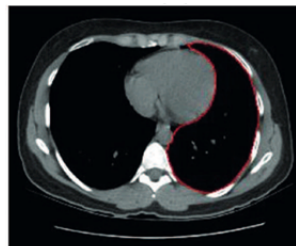
Dataset location:
<https://github.com/ieee8023/covid-chestxray-dataset>

From the images folder use the following image:

1-s2.0-S0929664620300449-gr3_lrg-c.jpg

[2] <https://towardsdatascience.com/image-segmentation-using-pythons-scikit-image-module-533a61ecc980>

[3] https://tirthajyoti.github.io/Scikit-image-book/Active_contour_model.html



Your result should look similar to the contour result →

See lecture 8 slides for further information.