EXERCICIOS

August 28, 2025

1 EXERCICIOS

1.1 Complete the Tasks in bold below. Keep in mind, you may need to run some of these tasks as Python scripts.

TASK: Open the *dog_backpack.jpg* image from the DATA folder and display it in the notebook. Make sure to correct for the RGB order.

[ ]:

TASK: Print the matrix of pixels out. Then, you should print the dimension of this matrix. Play around with the colours and size.

[ ]:

TASK: Flip the image upside down and display it in the notebook.

[15]:

[15]: <matplotlib.image.AxesImage at 0x29c79c9ef60>

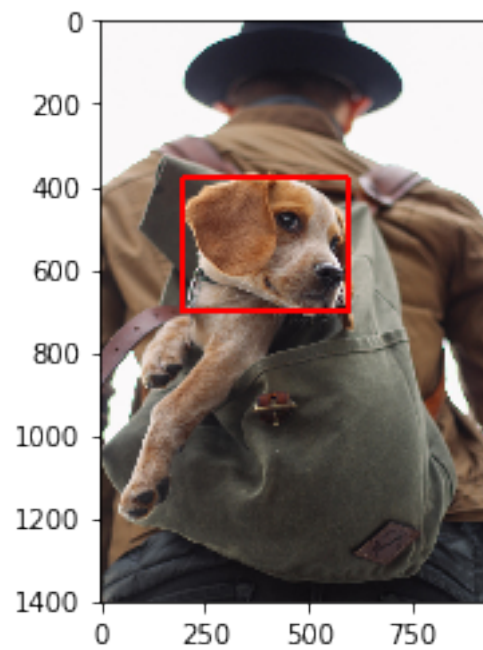**TASK: Draw an empty RED rectangle around the dogs face and display the image in the notebook.**

[16]:

[16]: <matplotlib.image.AxesImage at 0x29c79cf8d68>
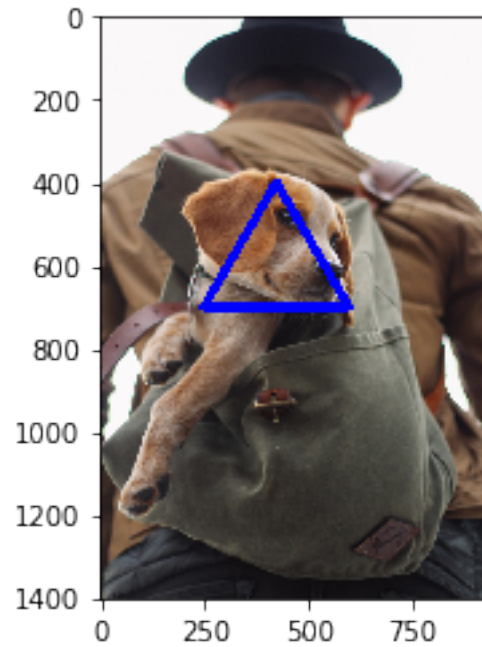
[17]:

[17]: <matplotlib.image.AxesImage at 0x29c79d48ac8>

TASK: Draw a BLUE TRIANGLE in the middle of the image. The size and angle is up to you, but it should be a triangle (three sides) in any orientation.

[30]:

[30]: <matplotlib.image.AxesImage at 0x29c79f7d780>

1.1.1 BONUS TASK. Can you figure our how to fill in this triangle? It requires a different function that we didn't show in the lecture! See if you can use google search to find it.

CLICK ME FOR A DIRECT LINK TO THE HINT

[31]:

[31]: <matplotlib.image.AxesImage at 0x29c7be436d8>

TASK: (NOTE: YOU WILL NEED TO RUN THIS AS A SCRIPT). Create a script that opens the picture and allows you to draw empty red circles whever you click the **RIGHT MOUSE BUTTON DOWN.**

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