



Con respecto a los dos ejes:

```
img_3 = cv2.flip(img_fix, -1)  
plt.imshow(img_3)
```



Referencias

Brooks, R. A. (1979). The ACRONYM model-based vision system. *Proceedings of the 6th international joint conference on Artificial intelligence, 1*, págs. 105-113.

Canny, J. (1986). A computational approach to edge detection. *IEEE Transactions on pattern analysis and machine intelligence, 6*, 679-698.

Chan, T. F. (2001). Active contours without edges. *IEEE Transactions on image processing, 10(2)*, 266-277.

Chollet, F. (2021). *Deep learning with Python*. Simon and Schuster.

- Clevert, D. A. (2015). Fast and accurate deep network learning by exponential linear units (elus). *arXiv preprint arXiv:1511.07289*.
- Csáji, B. C. (2001). *Approximation with artificial neural networks*. Hungary: Faculty of Sciences, Eötvös Loránd University.
- Dalal, N. &. (2005). Histograms of oriented gradients for human detection. *IEEE computer society conference on computer vision and pattern recognition (CVPR'05), 1*, págs. 886-893.
- Felzenszwalb, P. M. (2008). A discriminatively trained, multiscale, deformable part model. *IEEE conference on computer vision and pattern recognition*, (págs. 1-8).
- Fischler, M. A. (1973). The representation and matching of pictorial structures. *IEEE Transactions on computers, 100(1)*, 67-92.
- Glorot, X. &. (2010). Understanding the difficulty of training deep feedforward neural networks. *Thirteenth international conference on artificial intelligence and statistics* (págs. 249-256). JMLR Workshop and Conference proceedings.
- Godbole, V., Dahl, G., Gilmer, J., Shallue, C., & Nado, Z. (1 de 2023). *Deep Learning Tuning Playbook*. Obtenido de http://github.com/google/tuning_playbook
- Harris, C. &. (1988). A combined corner and edge detector. *Alvey vision conference, 15(50)*, págs. 10-5244.
- He, K. Z. (2015). Delving deep into rectifiers. Surpassing human-level performance on imagenet classification. *IEEE international conference on computer vision* (págs. 1026-1034). IEEE.
- He, K. Z. (2016). Deep residual learning for image recognition. *Proceedings of the IEEE conference on computer vision and pattern recognition*, (págs. 770-778).
- Hornik, K. M. (1989). Multilayer feedforward networks are universal approximators. *Neural networks*, 359-366.
- Huang, G. a. (2017). Densely connected convolutional networks., (págs. 4700--4708).

- Hubel, D. H. (1962). Receptive fields, binocular interaction and functional architecture in the cat's visual cortex. *The Journal of physiology*, 160(1), 106-154.
- Klambauer, G. U. (2017). Self-normalizing neural networks. *Advances in neural information processing systems*, 30.
- Koṭlawī, A. Y. (s.f.). *Akhlāq-uṣ-Ṣālihīn*. Karachi, Pakistan: Maktaba-tul-Madīnaḥ.
- Krizhevsky, A. S. (2012). Imagenet classification with deep convolutional neural networks. *Advances in neural information processing systems*, 25, 1097-1105.
- Lazebnik, S. S. (2006). Beyond bags of features: Spatial pyramid matching for recognizing natural scene categories. *IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'06)*, 2, pág. 2169.
- LeCun, Y. B. (1989). Backpropagation applied to handwritten zip code recognition. *Neural computation*, 1(4), 541-551.
- LeCun, Y. B. (1998). Gradient-based learning applied to document recognition. *86(11)*, 2278-2324.
- Lin, M. a. (2013). Network in network. *arXiv:1312.4400*.
- Liu, H. D. (2021). Pay Attention to MLPs. *arXiv preprint arXiv:2105.08050*.
- Lowe, D. (1999). Object recognition from local scale invariant features. *Proceedings of the seventh IEEE international conference on computer vision*, 2, págs. 1150-1157.
- Lowe, D. G. (1987). Three-dimensional object recognition from single two-dimensional images. *Artificial intelligence*, 31(3), 355-395.
- Marr, D. &. (1980). Theory of edge detection. *Proceedings of the Royal Society of London. Series B. Biological Sciences*, 207(1167), págs. 187-217.
- Marr, D. (2010). *Vision, A Computational Investigation into the Human Representation and Processing of Visual Information*. The MIT Press.
- Masters, D., & Luschi, C. (s.f.). *Revisiting small batch training for deep neural networks*. Obtenido de <https://arxiv.org/pdf/1804.07612.pdf>

- Ng, A. (2019). *Machine learning yearning: Technical strategy for ai engineers in the era of deep learning*. Obtenido de Machine learning yearning: <https://www.mlyearning.org>
- Papert, S. A. (1966). *The summer vision project*.
- Roberts, L. G. (1963). Machine perception of three-dimensional solids (Doctoral dissertation. *Massachusetts Institute of Technology*.
- Rosenblatt, F. (1958). The perceptron: a probabilistic model for information storage and organization in the brain. *Psychological review*, 65(6), 386.
- Rumelhart, D. E. (1986). Learning representations by back-propagating errors. *Nature*, 323(6088), 533-536.
- Saravia, E. (2021). ML Visuals. <https://github.com/dair-ai/ml-visuals>.
- Shi, J. &. (2000). Normalized cuts and image segmentation. *IEEE Transactions on pattern analysis and machine intelligence*, 22(8), 888-905.
- Simonyan, K. &. (2014). Very deep convolutional networks for large-scale image recognition. *arXiv preprint arXiv:1409.1556*.
- Szegedy, C. L. (2015). Going deeper with convolutions. *Proceedings of the IEEE conference on computer vision and pattern recognition*, (págs. 1-9).
- Tolstikhin, I. H. (2021). Mlp-mixer: An all-mlp architecture for vision. *arXiv preprint arXiv:2105.01601*.
- Viola, P. &. (2004). Robust real-time face detection. *International journal of computer vision*, 57(2), 137-154.
- Zeiler, M. D. (2014). Visualizing and understanding convolutional networks. *European conference on computer vision* (págs. 818-833). Cham: Springer.
- Zhang, A. L. (2021). *Dive into deep learning*. arXiv preprint arXiv:2106.11342.