- Use online open source implementations, and transform them to your needs.

- <u>Transfer learning</u>: take the computed weights of a model in a layer and use them as your input, to maybe already the softmax or some hidden units.
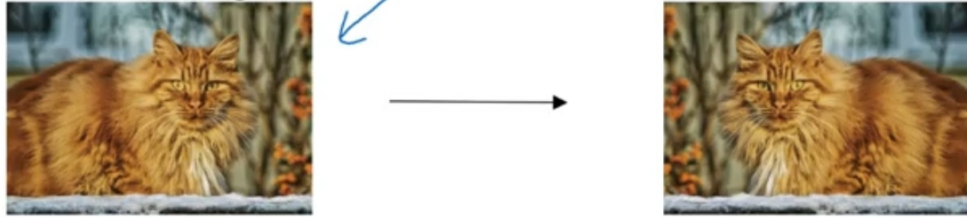
What you should remember:

- To adapt the classifier to new data: Delete the top layer, add a new classification layer, and train only on that layer
- When freezing layers, avoid keeping track of statistics (like in the batch normalization layer)
- Fine-tune the final layers of your model to capture high-level details near the end of the network and potentially improve accuracy
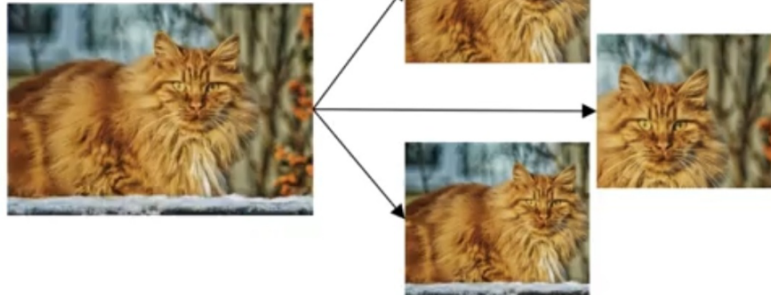
- Data augmentation:

Common augmentation method

Mirroring

Random Cropping

Color shifting

R G B
↓ ↓ ↓

+20,-20,+20

-20,+20,+20