

TEKLRN

KERAS LEVEL 28

1. Transfer learning & fine-tuning
 - Introduction
 - Setup
2. Freezing layers: understanding the trainable attribute
 - `weights` is the list of all weights variables of the layer.
 - `trainable_weights` is the list of those that are meant to be updated (via gradient descent) to minimize the loss during training.
 - `non_trainable_weights` is the list of those that aren't meant to be trained. Typically they are updated by the model during the forward pass.
 - Example: the Dense layer has 2 trainable weights (kernel & bias)
 - Example: setting trainable to False
3. Recursive setting of the trainable attribute
4. The typical transfer-learning workflow
5. Fine-tuning
6. Transfer learning & fine-tuning with a custom training loop
7. An end-to-end example: fine-tuning an image classification model on a cats vs. dogs (Code Exampe)
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 - Getting the data
 - Standardizing the data
 - Using random data augmentation
 - Build a model
 - Train the top layer
 - Do a round of fine-tuning of the entire model