Overfitting - usually spotted by a high train accuracy and low test accuracy
Regularization - methods that help reduce overfitting

Regularization methods

- **Reduce model capacity**
- **L2 Regularization**
    - `from tensorflow.keras import regularizers`
    - In our models, we can add L2 regularization for each layer separately
    - In keras, to each layer we add `kernel_regularizer=regularizers.l2(0.01)`
        - 0.01 is the strength of the regularization
- **Dropout**
    - We can add dropout between two layers
    - In keras, `x = layers.dropout(0.5)(x)`
    - Increases the amount of time it takes for the model to train, so you have to increase epochs
- **Early stoppage**
- **Data augmentations**
- **Batch Norm**
    - Although it isn't really seen as a method for regularization, since its purpose is more to have faster training by normalizing data, it still has a regularizing effect