# Section 5: Math, numpy, PyTorch

## Terms and datatypes in math and computers



## The Perceptron

A computer screen with text and images

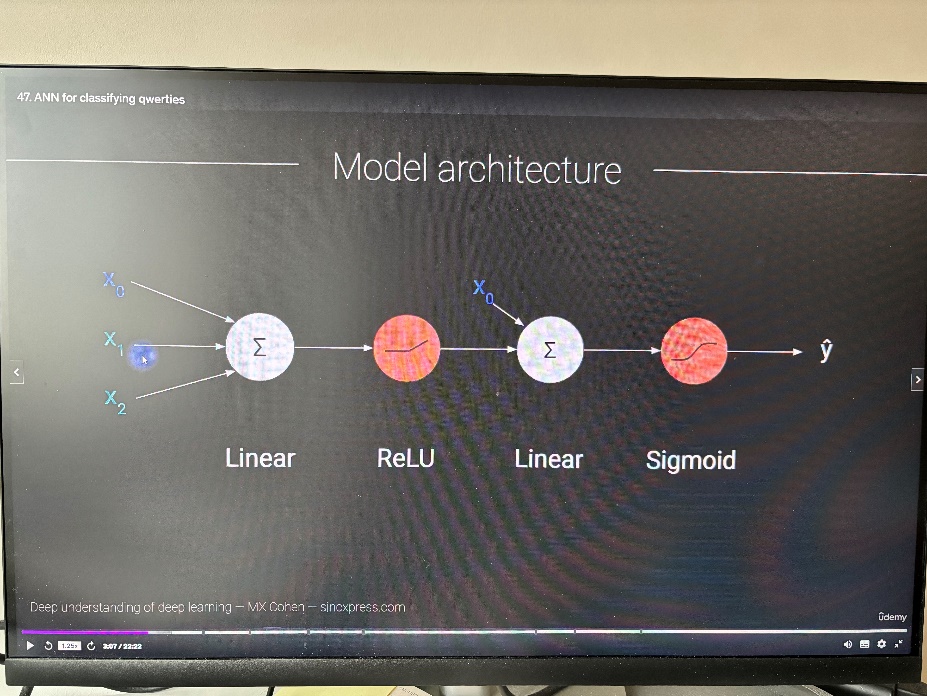
Description automatically generated

## The full perceptron model

A computer screen with text and images on it

Description automatically generated

## Model architecture



A computer screen with text on it

Description automatically generated

## Layers in DL networks

A screen shot of a computer

Description automatically generated

## 55. Depth vs. Width: number of parameters

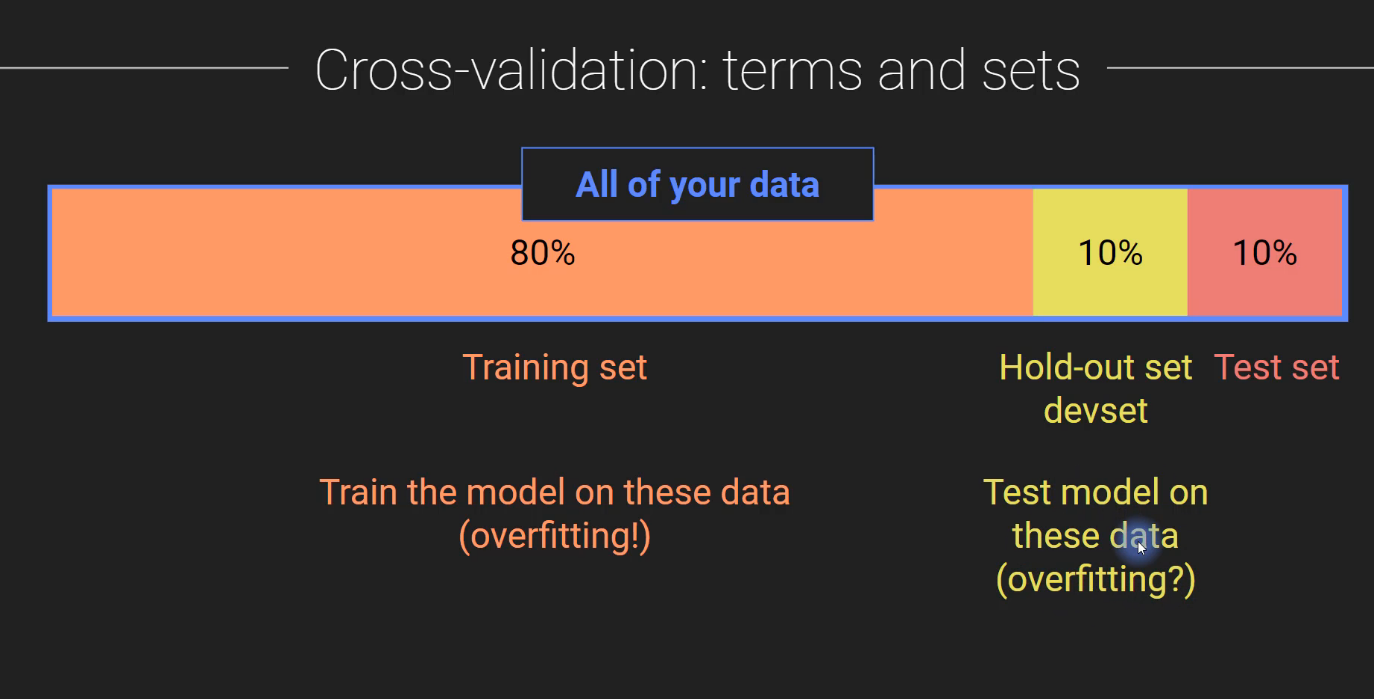
A computer screen with a diagram

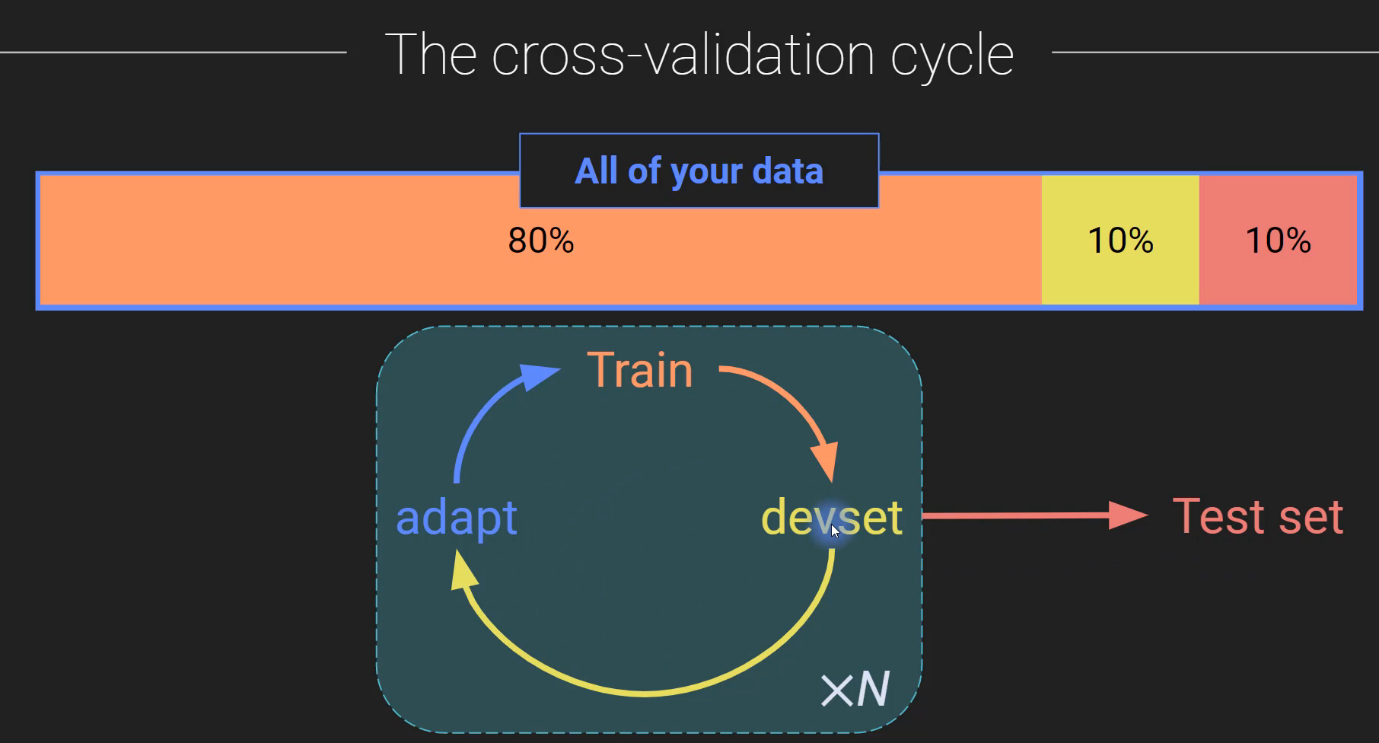
Description automatically generated

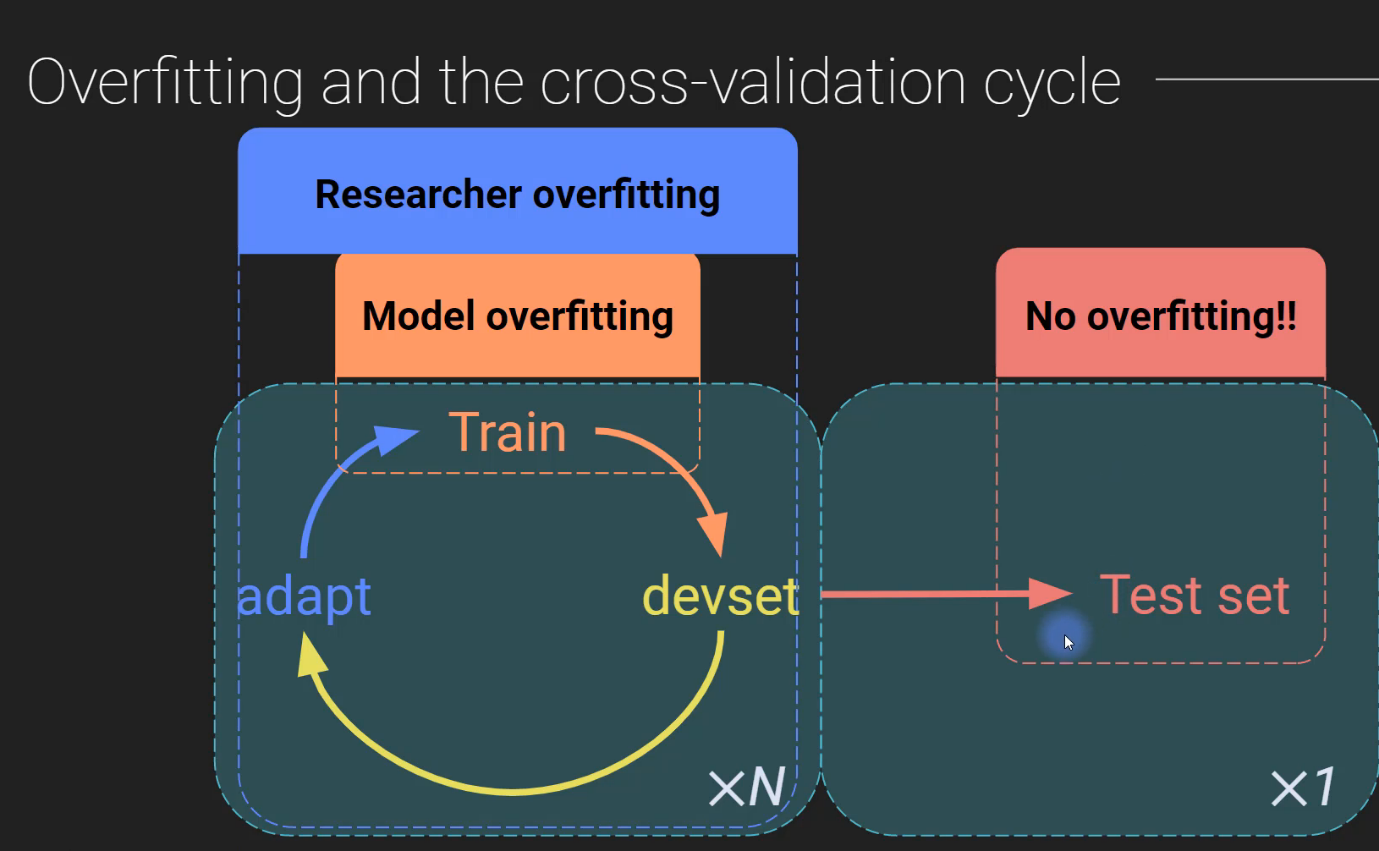
# Section 8: Overfitting and cross-validation

## 62. Cross-validation

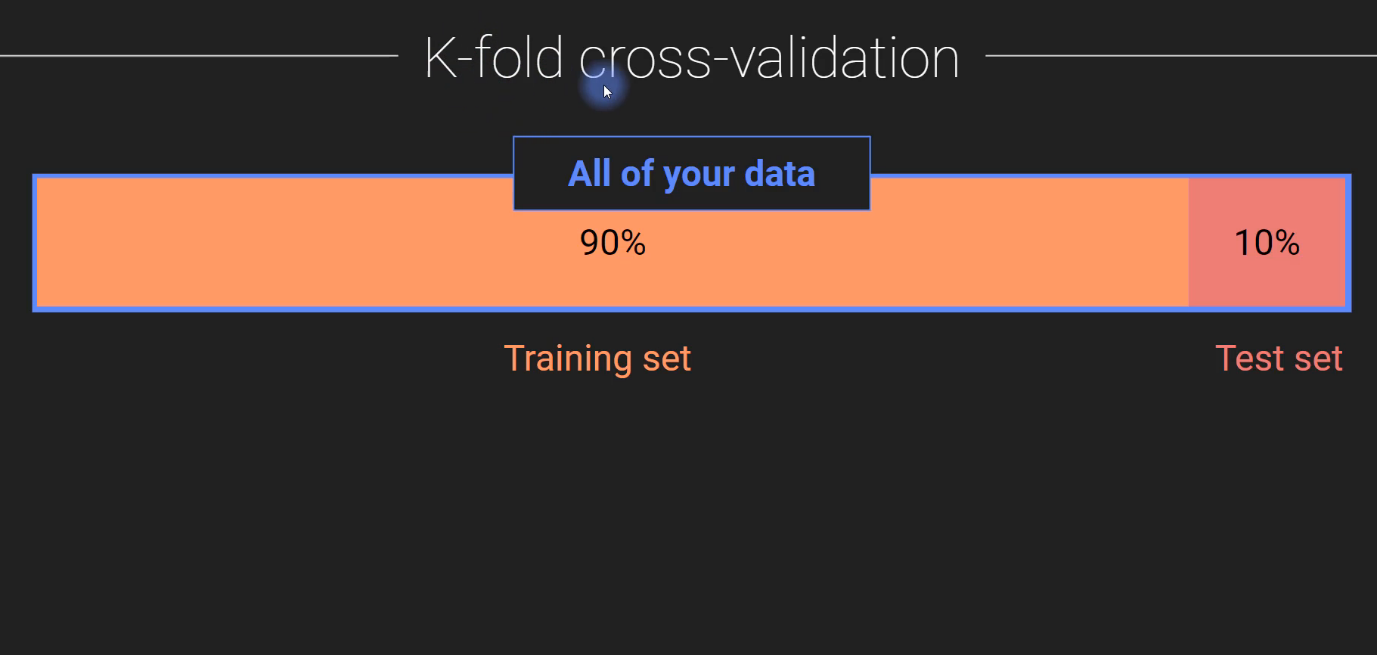
1. Cross-validation in general, see screenshots in order below

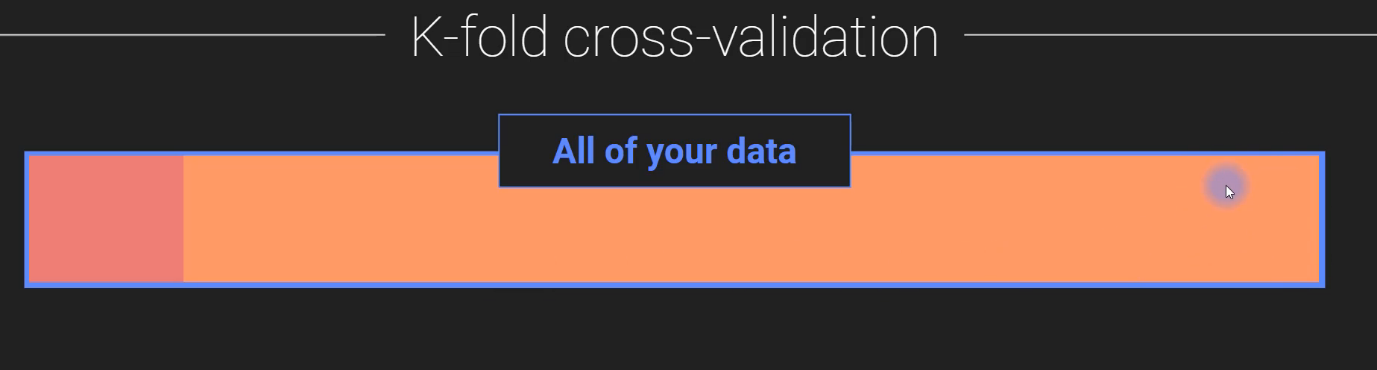


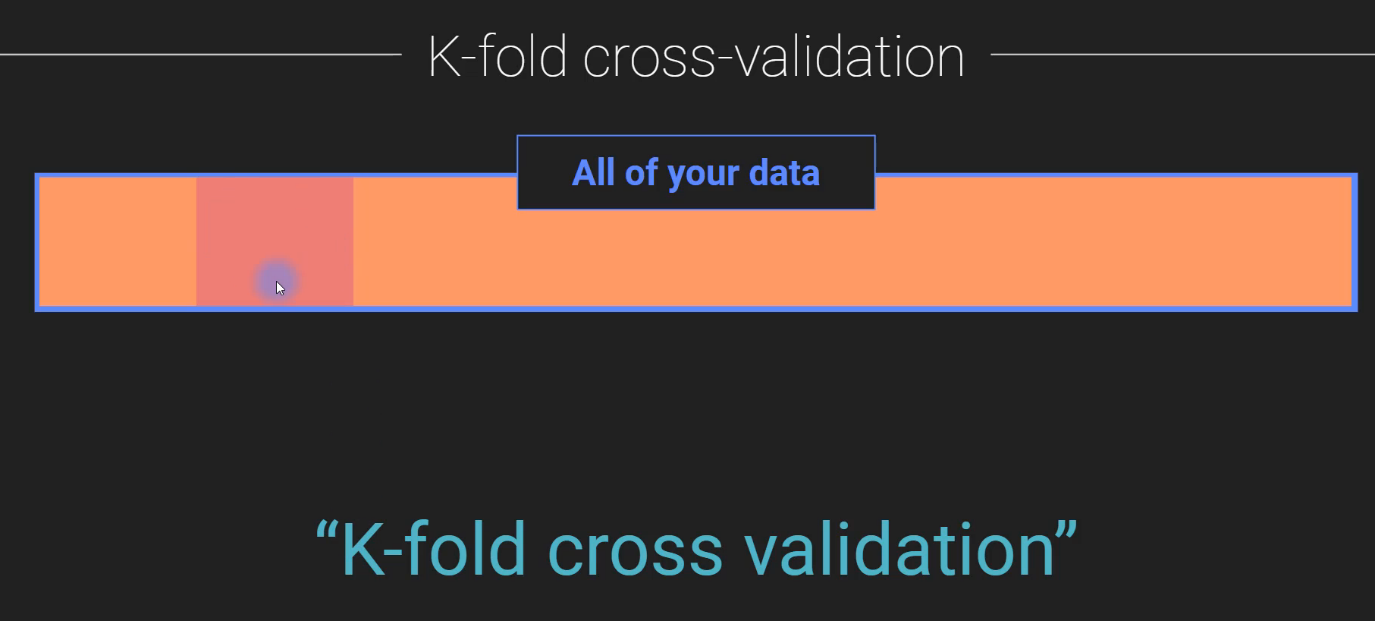




2. K-fold cross-validation, see screenshots in order below

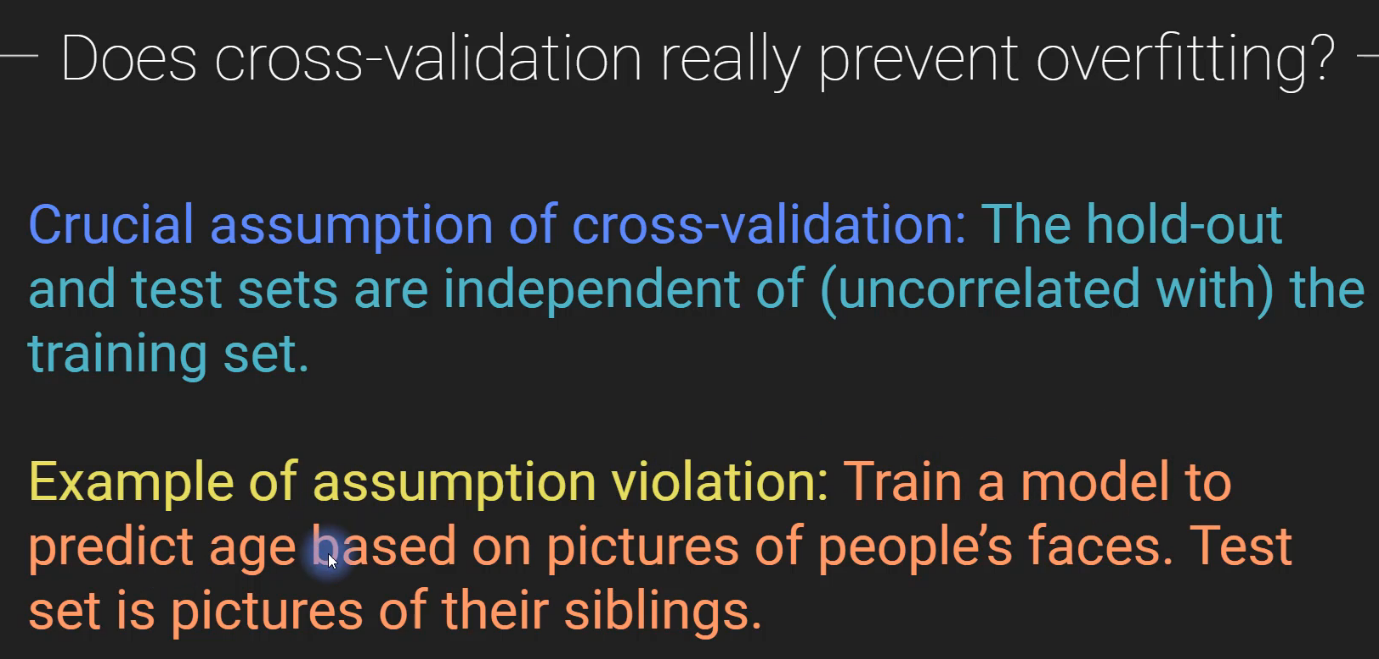






3. Underlying assumption that makes or breaks cross-validation (see screenshots in order)





## 66. Cross-validation – DataLoader for mini-batch training

A screen shot of a black and orange rectangular object

Description automatically generated