Outlines

- 0. Tensor basics
    - How to create and manipulate tensors in PyTorch as well as how to understand tensors as a particular data structure/type
- 1. Simple Linear Regression
    - General intuition about machine learning
    - Standard way of building and training models
- 2. Feedforward neural network
    - Non-linear function
    - Regression → classification
    - Training + testing
- 3. Text classification
    - When the input data are not numerical: text data transformation
    - Application of word embedding, BOW, LSTM
    - More realistic workflow: batching, training + testing + deploying etc.

How a gradient-based machine learning model typically works
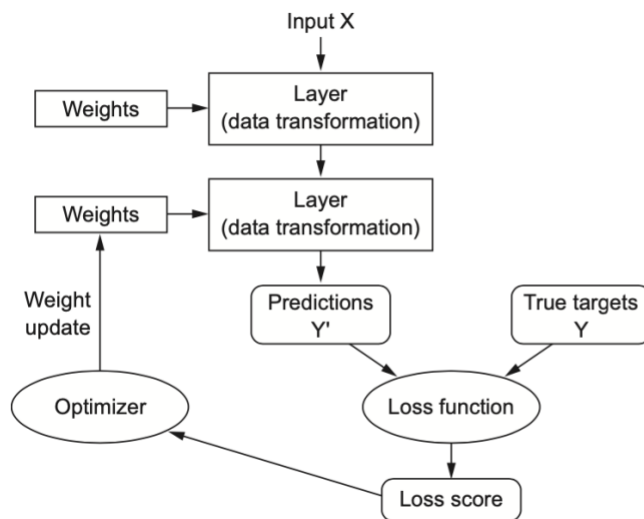

Figure 3.1 Relationship between the network, layers, loss function, and optimizer

Credit: Deep Learning with Python (2nd), François Chollet, 2022, p58