## Tensorflow Tutorial

Lesson 5

A simple, yet more complex example

## Estimate pricing of flat including area

- Two inputs: Area and a "grade" of the area, where "1" is the best, and "6" the worst
- Since we have two inputs, more weights are needed
- The formula now may looks like this:

• 
$$y = x_1 * W_1 + x_2 * W_2 + b$$

Where W and b are learnable parameters

## Key Changes to code in comparison to Lesson 4

- 1. Read out function must now read 2 x values
- 2. All calculations are now in "tensorflow"
- 3. Tdqm was used
  - If it is not found try to install it via pip
- 4. Learning rate was changed
  - If the learning rate is too high, the loss may never converge
- 5. Different initialization of weights

## Interesting Parameters

What happens if the learning rate is changed?

What happens if the number of iterations is changed?

• What happens if the weights and the bias gets initialzed differently?

→ Do not forget to use the tensorboard!