## **One Fully Connected Layer**

• One fully-connected layer converts an input (column) vector x to an output (column) vector h:

$$h = f(Wx + b), \tag{1}$$

- ullet W is a weight matrix of input columns and output rows,
- b a bias vector of length of output,
- ullet  $f(\cdot)$  is a non-linearity applied <u>usually</u> elementwise.

