

$$y(\mathbf{x}, \mathbf{w}) = w_0 + \sum_{j=1}^{M-1} w_j x_j$$

- **goal:** Predicting a continuous y as a function of the variables \mathbf{x} and the parameters \mathbf{w}
- **Model assumption:**
 - data generated by $t = y(\mathbf{x}, \mathbf{w}) + \epsilon$
 - Error $\epsilon \sim$ normal distribution with zero mean
- **Loss function:** sum-of-squares error between t and prediction y (least squares)

