

Data  
 $\{x^{(i)}, y^{(i)}\}_{i=1}^N \rightarrow$

Learner

Objective

$$\mathcal{L}(f_{\theta}(x), y) = (f_{\theta}(x) - y)^2$$

Hypothesis space

$$f_{\theta}(x) = \sum_{k=1}^K \theta_k \phi_k(x)$$

Optimizer

$$\theta^* = (\Phi^T \Phi)^{-1} \Phi^T \mathbf{y}$$

$\rightarrow f$