Labeled data

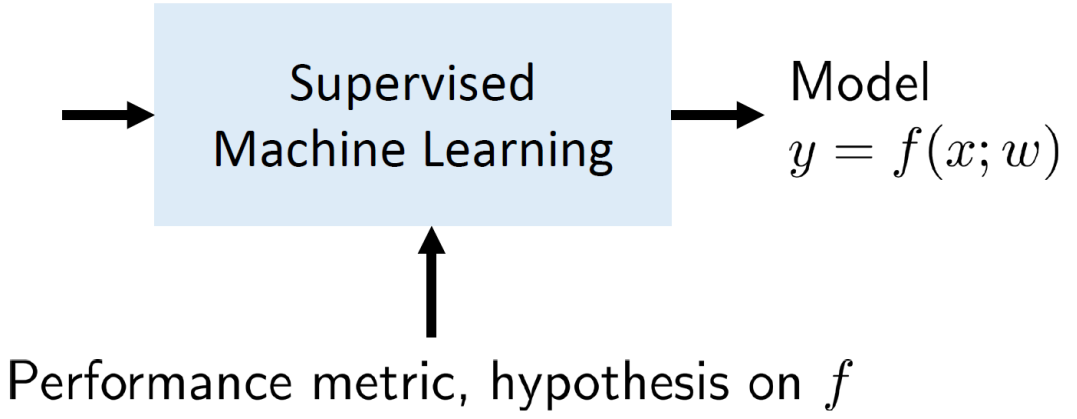
$\mathcal{D} = \{(x_i, y_i)\} \subset \mathbb{X} \times \mathbb{Y}$

$x_i \in \mathcal{D}_x$ data samples

$y_i \in \mathcal{D}_y$ labels

$\mathbf{x} = [x_i]$

$\mathbf{y} = [y_i]$



Model purpose – Regression

- The model *f* shall map $x \mapsto y$ and approximate an unknown function $\hat{f} : \mathbb{X} \to \mathbb{Y}$
- $y_i \in \mathbb{Y} \subseteq \mathbb{R}^{n_y}$
- Examples: data-driven modeling, energy forecasting, ...