Non-linear hypotheses 비선형

too many features $\longrightarrow$ too much calculation

ex. 50×50 pixel img. $\rightarrow$ 2500 pixels

  $n = 2500$ (if RGB: 7500)

$$x = \begin{bmatrix} \text{pixel 1 intensity} \\ \text{"} \quad 2 \quad \text{"} \\ \vdots \\ \text{"} \quad 2500 \quad \text{"} \end{bmatrix}$$

Quadratic features $(x_i \times x_j)$: $\approx$ 3 million features

Neurons and the brain

Neural Network 신경망

Origins: Algorithms that try to mimic the brain.
    80-90s widely used, late 90s diminished.
    "State-of-the-art tech." recently