神经网络之多重分类器

Multiple output units: One-vs-all.

Pedestrian   Car   Motorcycle   Truck
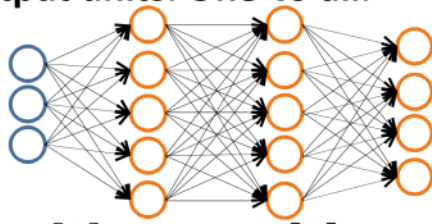
$h_\Theta(x) \in \mathbb{R}^4$

目前需要识别四类物体
Pedestrian
Car
Motorcycle
Truck

Want $h_\Theta(x) \approx \begin{bmatrix} 1 \\ 0 \\ 0 \\ 0 \end{bmatrix}$, $h_\Theta(x) \approx \begin{bmatrix} 0 \\ 1 \\ 0 \\ 0 \end{bmatrix}$, $h_\Theta(x) \approx \begin{bmatrix} 0 \\ 0 \\ 1 \\ 0 \end{bmatrix}$,   etc.

when pedestrian   when car   when motorcycle

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    when pedestrian   when car   when motorcycle

Training set: $(x^{(1)}, y^{(1)}), (x^{(2)}, y^{(2)}), \ldots, (x^{(m)}, y^{(m)})$

$y^{(i)}$ one of $\begin{bmatrix} 1 \\ 0 \\ 0 \\ 0 \end{bmatrix}$, $\begin{bmatrix} 0 \\ 1 \\ 0 \\ 0 \end{bmatrix}$, $\begin{bmatrix} 0 \\ 0 \\ 1 \\ 0 \end{bmatrix}$, $\begin{bmatrix} 0 \\ 0 \\ 0 \\ 1 \end{bmatrix}$

    pedestrian   car motorcycle truck

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神经网络的思路再次都
已经很清晰了
接下来将会介绍神经网
络的代码实现相关细节

核心思路
就是增加输出层的神经元个数
然后通过神经元的个数，生成向量
再通过向量的不同生成出不同的特征