Housing Prices Prediction

$h_\theta(x) = \theta_0 + \theta_1 \times \underbrace{\text{frontage}}_{x_1} + \theta_2 \times \underbrace{\text{depth}}_{x_2}$

↓ by linear regression

new feature frontage

↑

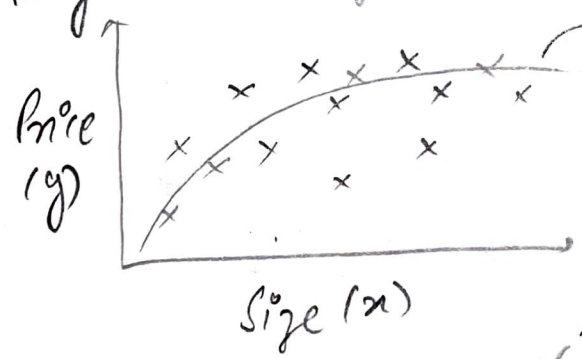
$\text{Area} = x = \text{frontage} \times \text{depth}$

$h_\theta(x) = \theta_0 + \theta_1 x = \theta_0 + \theta_1 \times \underbrace{\text{Area}}_{x}$

→ this new feature framed using two given features of training data set

∴, only two parameters instead of three

Polynomial Regression



$h_\theta(x) = \theta_0 + \theta_1 x + \theta_2 x^2$

→ but, this func^n moves down with inc^n↑ in x (size) which doesn't make sense

$h_\theta(x) = \theta_0 + \theta_1 x + \theta_2 x^2 + \theta_3 x^3$

↓

this func^n inc^n↑ with inc^n↑ in size (x)

↳ which does make sense