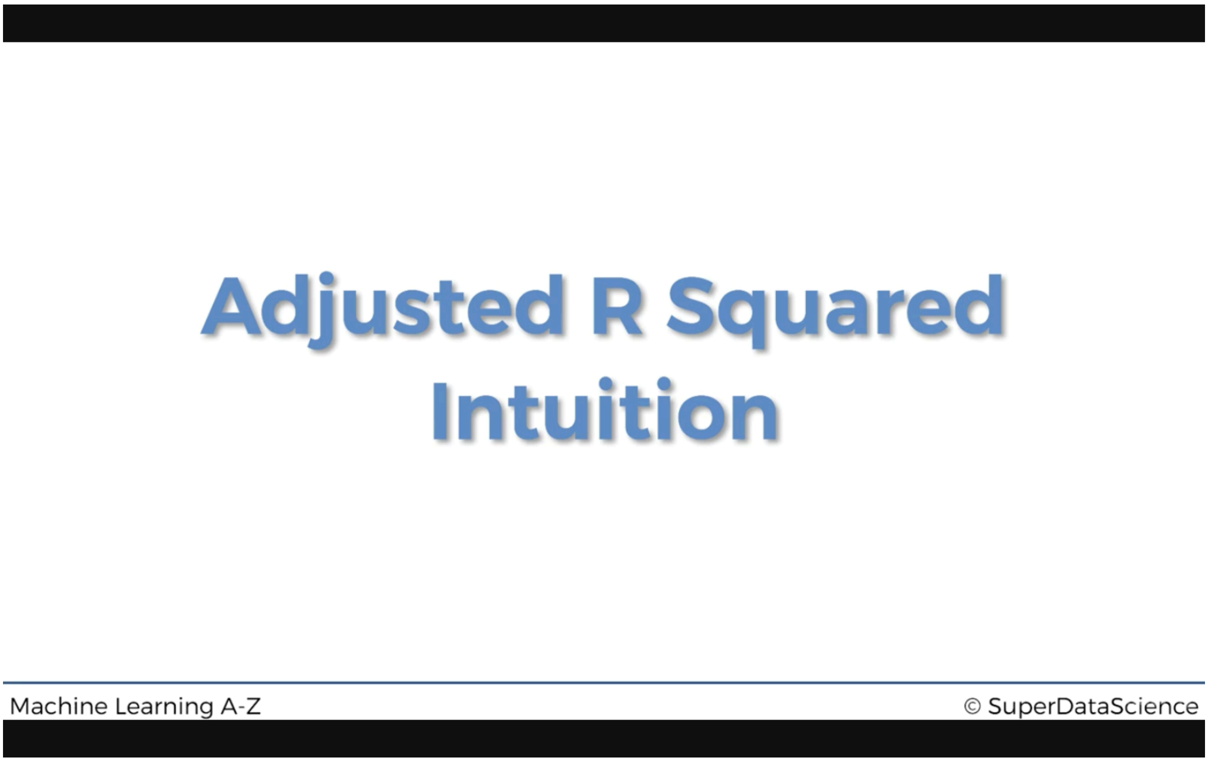
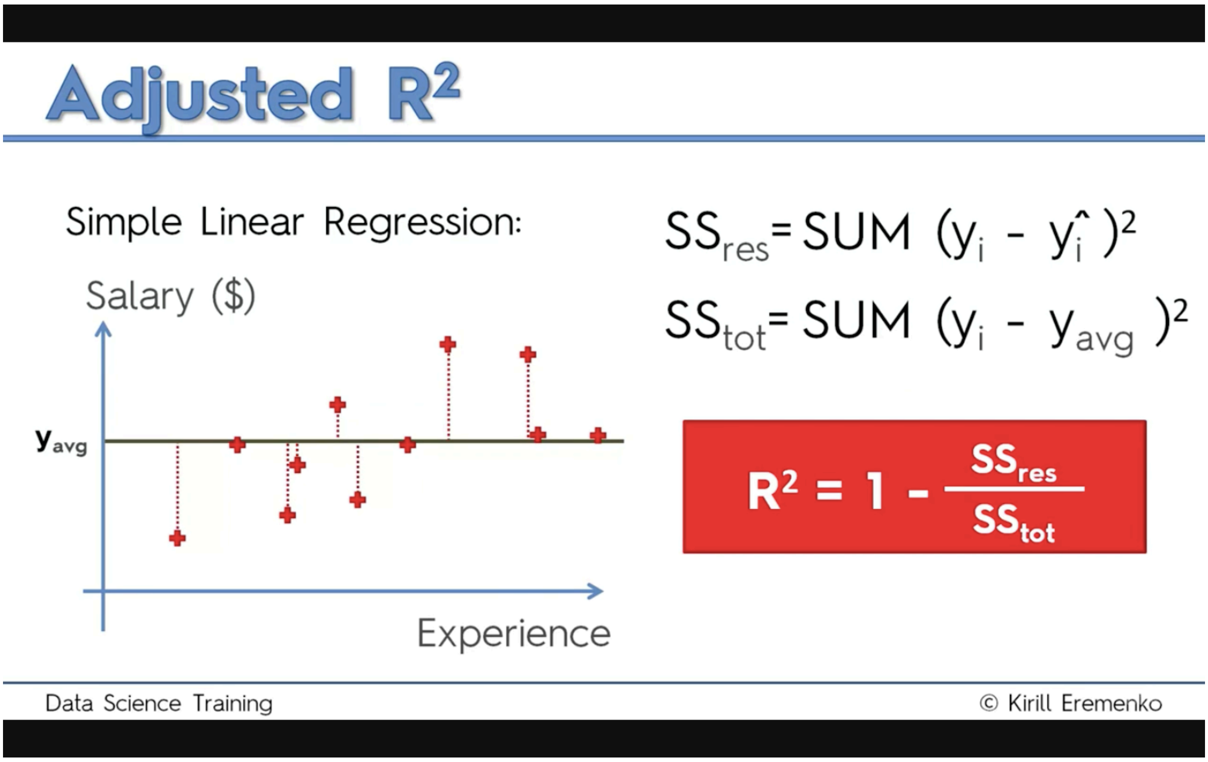
Adjusted R Squared





SS = Sum of Squares, res = residual, tot = total, avg =average

Adjusted R^2

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

$y = b_0 + b_1 * x_1$

$y = b_0 + b_1 * x_1 + b_2 * x_2$

Adjusted R^2

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

$y = b_0 + b_1 * x_1$

$y = b_0 + b_1 * x_1 + b_2 * x_2$

SS_{res} -> Min

Data Science Training
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Adjusted R^2

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

R^2 – Goodness of fit
(greater is better)

$y = b_0 + b_1{*}x_1$

$y = b_0 + b_1{*}x_1 + b_2{*}x_2$

SS_{res} -> Min

Problem:

$\boxed{+\ b_3{*}x_3}$

Adjusted R^2

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

R^2 – Goodness of fit
(greater is better)

$y = b_0 + b_1{*}x_1$

$y = b_0 + b_1{*}x_1 + b_2{*}x_2$

SS_{res} -> Min

Problem:

$\boxed{+\ b_3{*}x_3}$

R^2 will never decrease

Adjusted R^2

$$R^2 = 1 - \frac{SS_{res}}{SS_{tot}}$$

$$\text{Adj } R^2 = 1 - (1 - R^2)\frac{n - 1}{n - p - 1}$$

p - number of regressors

n - sample size