HW5 Writeup

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[1]

SSE at b_truth = (0.5, 0.75)^T is 12.014552846587636

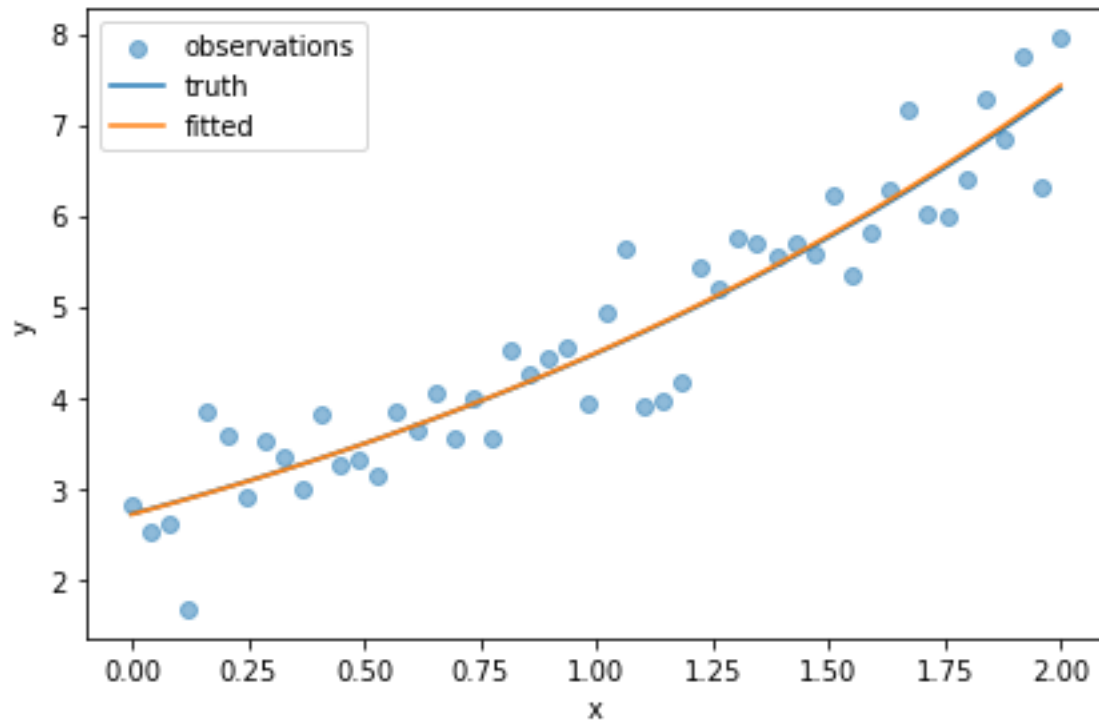The smallest loss achieved = 12.000179409325268

The fitted beta = (0.99835, 0.50347)^T

The number of iteration needed to reach this loss = 7

[2]

	iteration	B_hat	loss
0	0	[[0.5 0.75]]	52.58787640324584
1	1	[[1.52803886 0.20357575]]	86.7162610628767
2	2	[[1.19835774 0.38368614]]	19.88268730181391
3	3	[[1.03209878 0.48346503]]	12.2028742723291
4	4	[[0.99943653 0.50282426]]	12.00038858703934
5	5	[[0.99834641 0.5034644]]	12.000179409570165
6	6	[[0.99834523 0.50346509]]	12.00017940932527
7	7	[[0.99834523 0.50346509]]	12.000179409325268

[3]

[4]

Estimated RMSE via LOOCV = 0.49019491728469883

[5]

Estimated RMSE via 10-fold CV = 1.9276722948217175