Questions

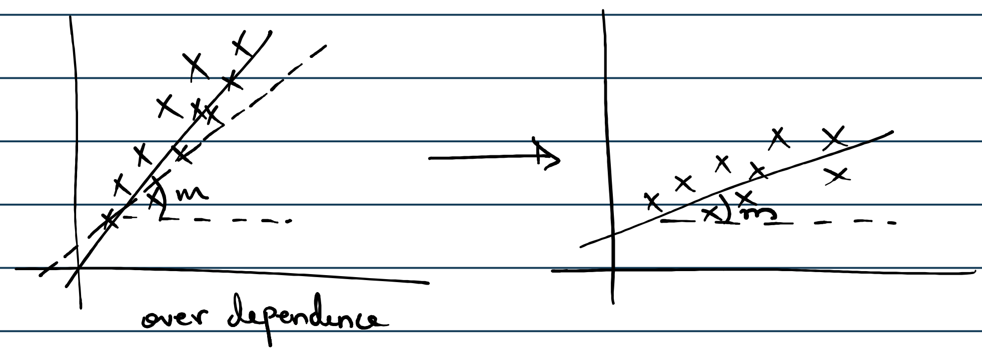
Sunday 14 April 2024 2:24 AM

1) By using Gradient Descent if we are able to obtain the best parameters, whats the purpose of regularization?

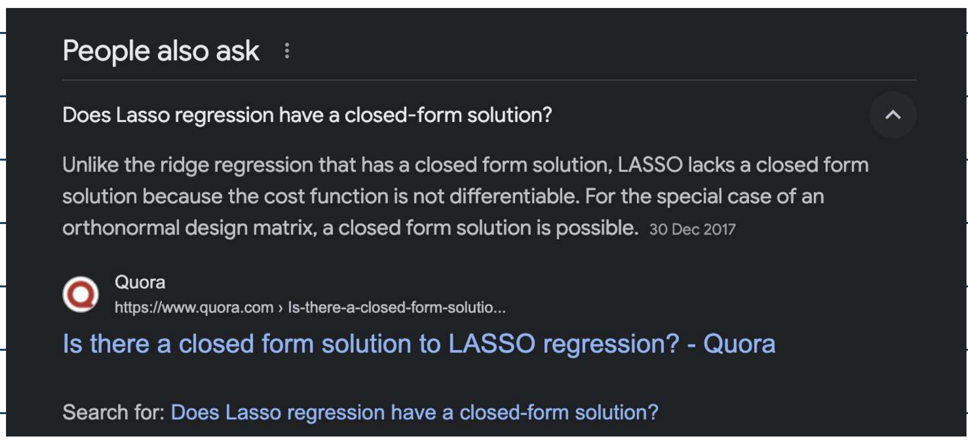
→ without regularization, we can surely obtain the best parameters, but they tend to be the best parameters for that specific sample, by using regularization we aim to generalize our model, so it perform well on unseen samples.

2) Intercept not subjected to regularization?

→ Regularization aim to reduce overfitting. In Linear models overfitting occurs when the coefficients are high i.e. target depends highly on the input features. We want to reduce the slope & β_0 is not a slope term.



→ Regularization is a general technique to reduce overfitting. For linear models we add a penality term to the Loss function.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