**Fitting the model**

The potential problems of underfitting and overfitting should be assessed when fitting a model*.* A model is underfitted if it hardly captures the variation of the sample data. It is then said that the model has *high bias.* A model is overfitted, when it is overly sensitive to the idiosyncrasy of the sample data and captures the variation in too great detail. This problem often comes with the introduction of a sizeable number of features. Overfit models are said to have *high variance* (Raschka 2017:73). In both cases, the model will generalize poorly. A key step in defining a decent model in machine learning is to find an optimal bias-variance-balance, by tuning the complexity of one’s model. This is done through *regularization.*