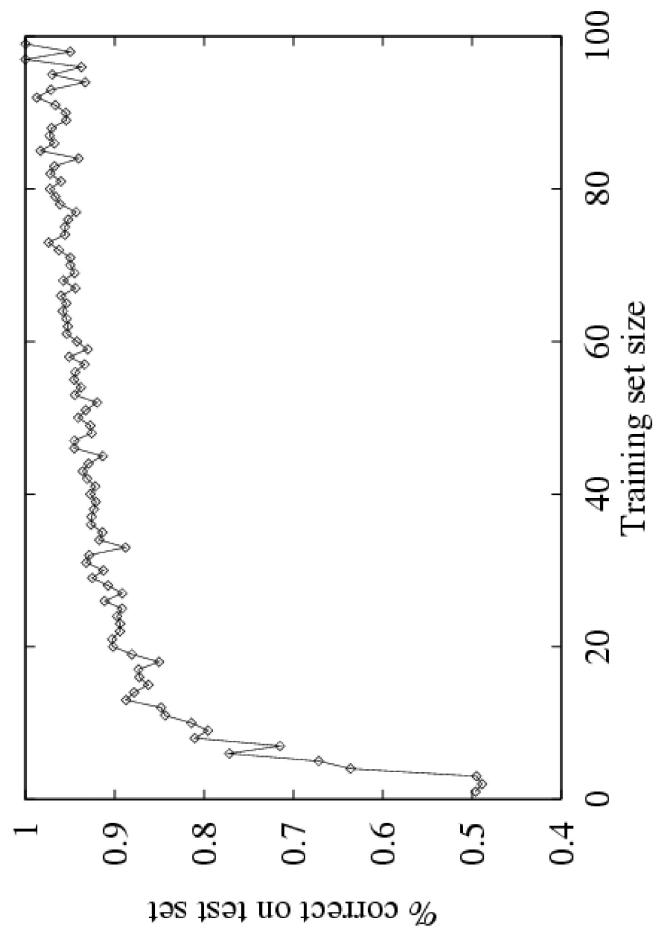


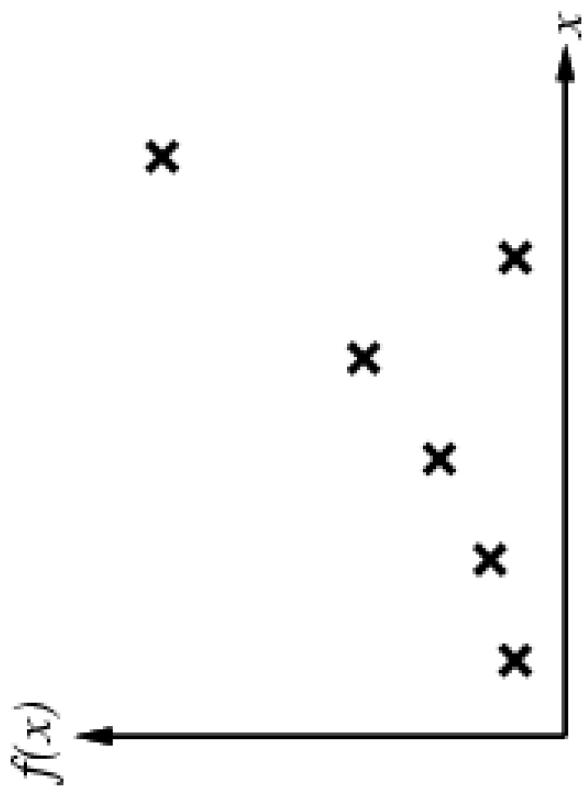
## Example of Test Performance

Restaurant problem

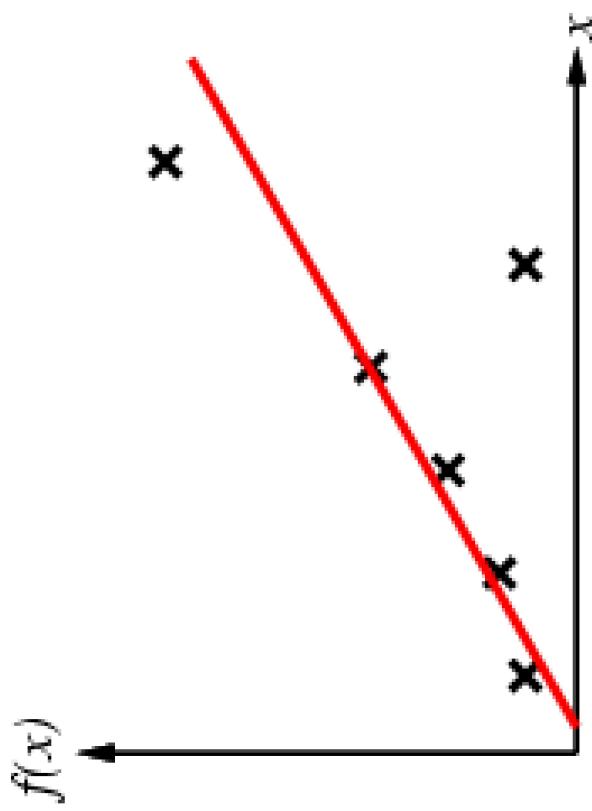
- simulate 100 data sets of different sizes
- train on this data, and assess performance on an independent test set
- learning curve = plotting accuracy as a function of training set size
- typical "diminishing returns" effect



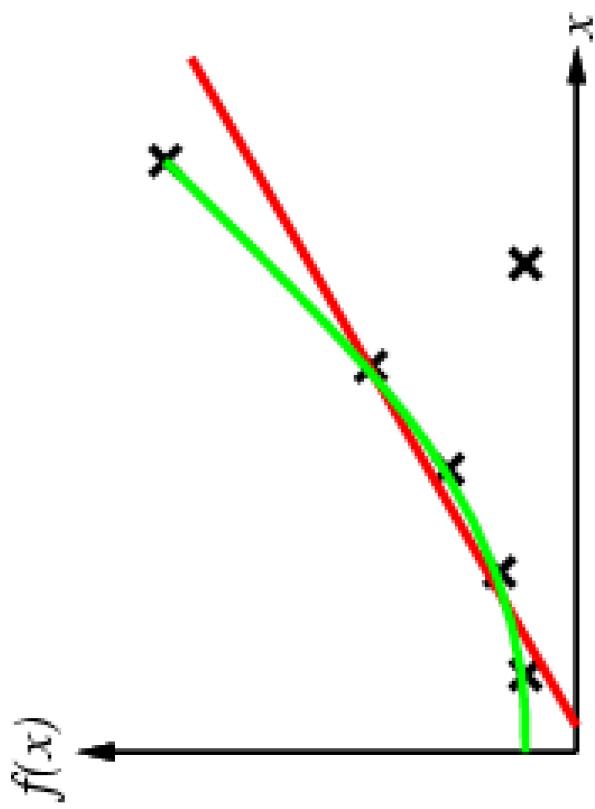
## Example



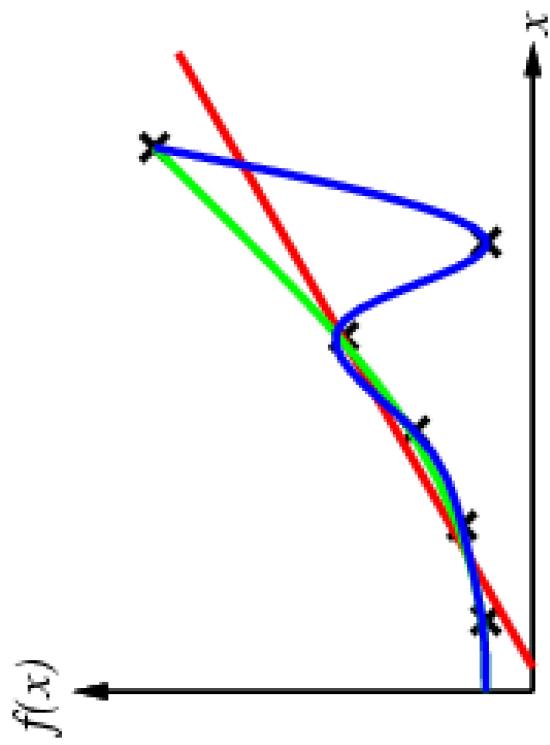
## Example



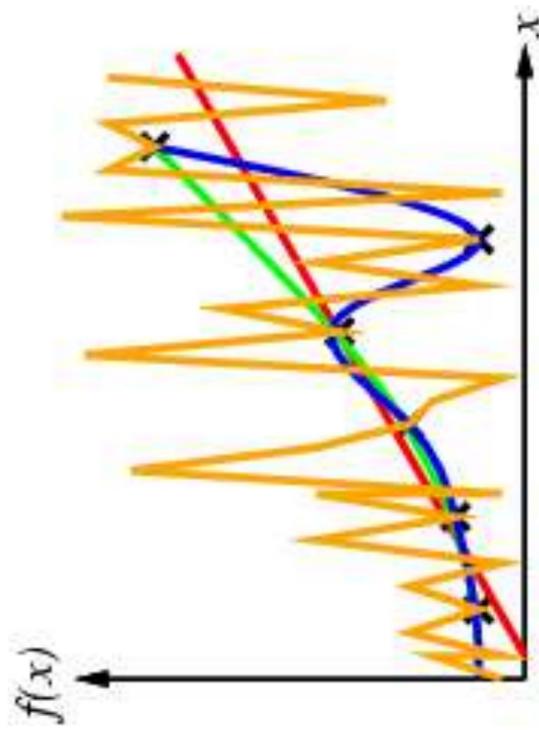
## Example



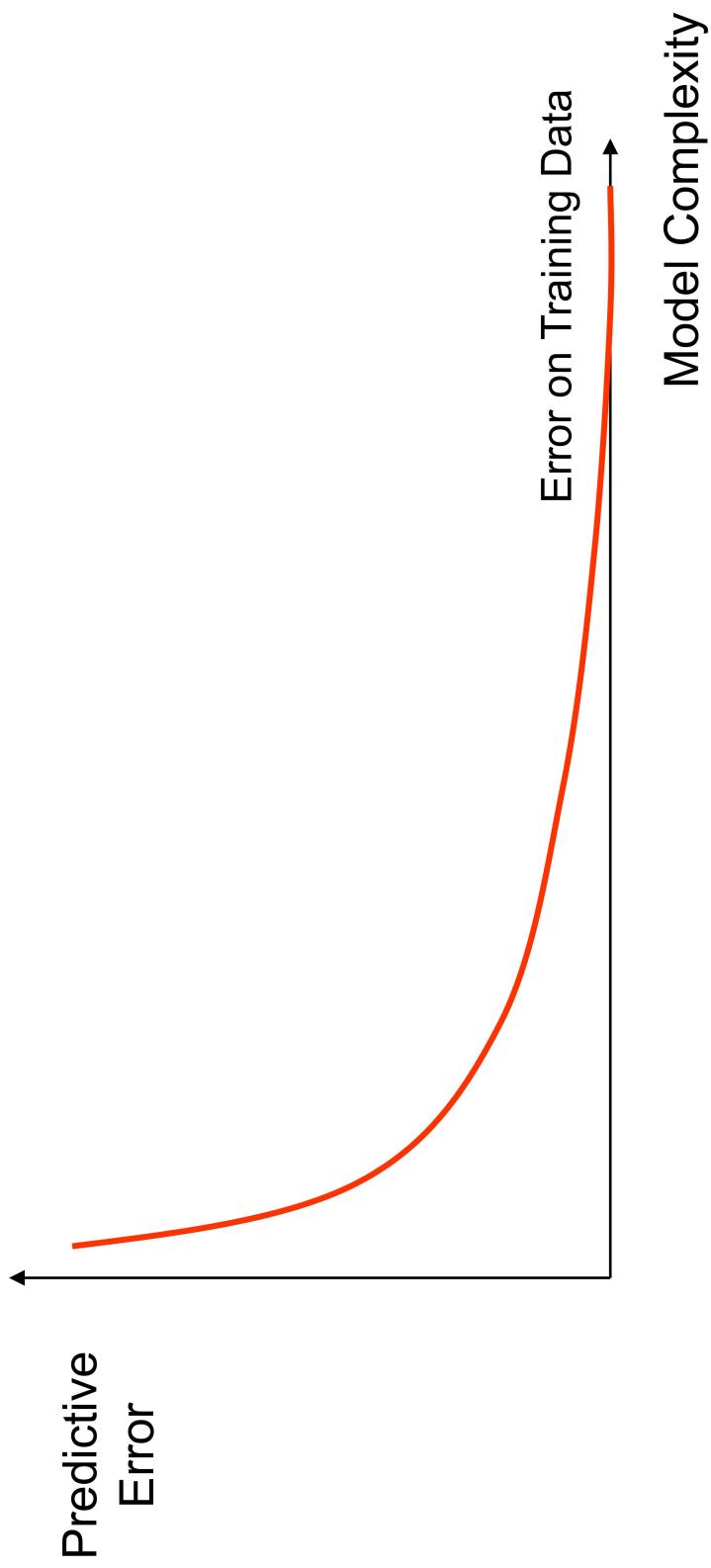
## Example



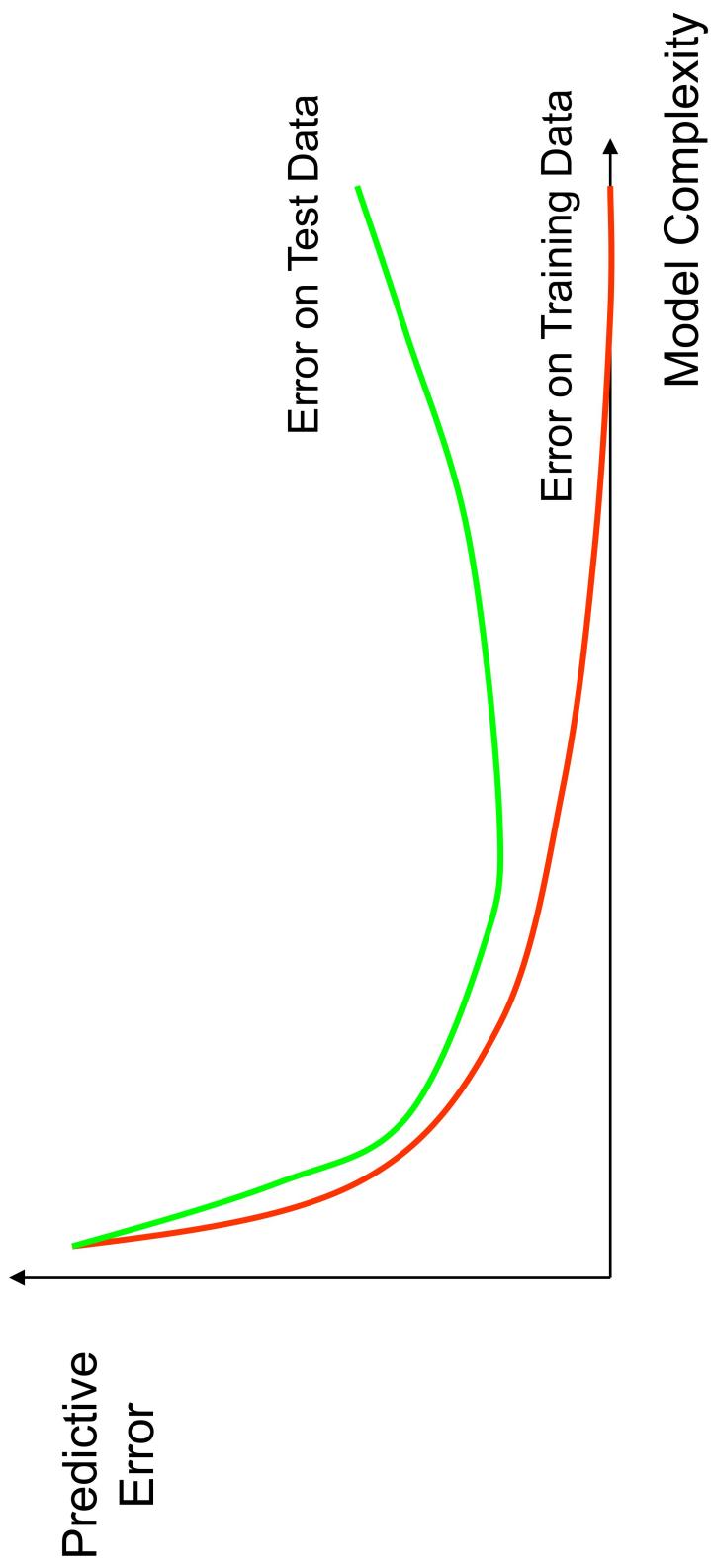
## Example



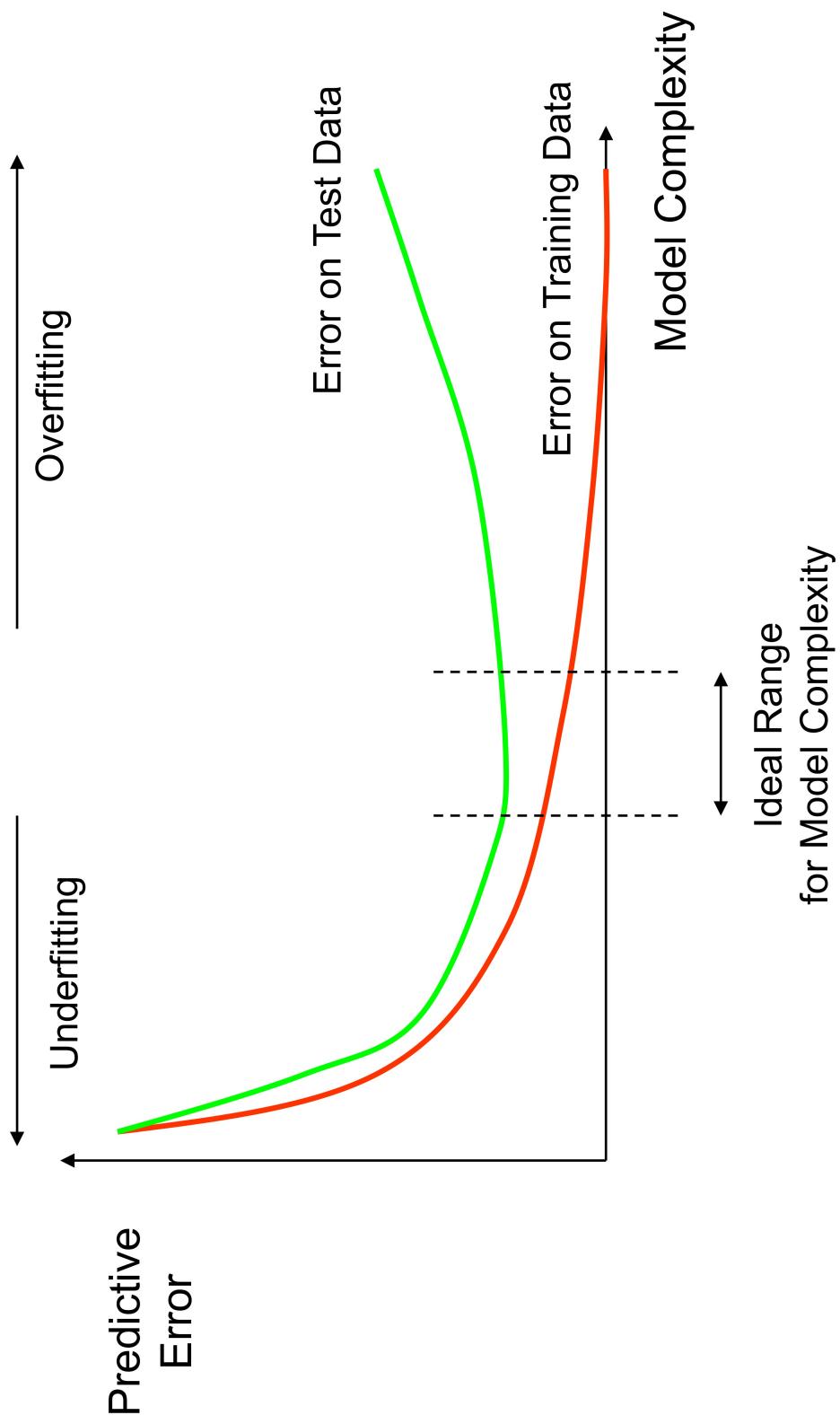
## How Overfitting affects Prediction



## How Overfitting affects Prediction



## How Overfitting affects Prediction



## Training and Validation Data

