**HW4**

**Theoretical Questions**

* What is "loss" function
* “loss" function vs RSS
* Andrew Ng Machine Learning course in Coursera, first 2 weeks <https://www.coursera.org/learn/machine-learning>
* Discrete Wavelet Transform (DWT) **vs** Discrete Fourier Transform (DFT)
* How can this technique be useful for data reduction if the wavelet transformed data are of the same length as the original data
* How many possible subsets are there for n variables
* What is PCA
* What is Model Building
* What is Heuristic Method
* What is Greedy Search
* What is Stratified Sampling
* Simple random sampling vs Sampling without replacement
* What other sampling types you know
* *Hyperparameters*, *Overfitting* and *Example 1.1: Polynomial Curve Fitting* from Pattern Recognition and Machine Learning book

**Exercises**

**Book**: Data Mining: Concepts and Techniques

p. 121, Exercises: 3.1- 3.8