Term Project Laboratory 2   **Deadline:** 15 February 2018 2330 Hours

Experiments with Linear Models for Regression

1. Repeat the experiments in §3.2 [1] to illustrate the dependence of bias and variance on model complexity. That is, obtain plots similar to Figures 3.5 and 3.6 by conducting the specific experiments.

2. Repeat the experiments in §3.3 [1] to illustrate Bayesian learning. That is, obtain plots similar to Fig. 3.7.

3. Repeat the experiments in §3.3 [1] to illustrate predictive distribution. That is, obtain plots similar to Figures 3.8 and 3.9.

4. Repeat the experiments in §3.5 [1] to illustrate the use of model evidence. That is, obtain plots similar to Fig. 3.14.

References

[1] C. M. Bishop, *Pattern Recognition and Machine Learning*, Springer, 2006.