

CS5487 Programming Assignment 1

Ji Yang

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Polynomial Function

(a) Implement 5 regression algorithms

Source code can be found at <https://github.com/yangji12138/machine-learning/tree/master/Programming%201> or the Codes Appendix.

(b) Using Sample Data to estimate 5-th order poly

Conclusion

Observe the experiment results, we can find that:

- (i) For London, the cells could be approximately divided into two clusters:
 $45\%(\pi) \ 0.8(\lambda)$; $55\%(\pi) \ 1.0(\lambda)$.
- (ii) For Antwerp, the cells could be approximately divided into two clusters:
 $40\%(\pi) \ 0.85(\lambda)$; $60\%(\pi) \ 2.3(\lambda)$.

Codes

Source code can be found at <https://github.com/yangji12138/machine-learning/tree/master/Programming%201>.