

A Partial Solution Manual for: *The Elements of
Statistical Learning* by Jerome Friedman, Trevor
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January 29, 2016

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Preface

This work is expected to be used as a supplementary material for Weatherwax and Epstein's solution manual [1], which I found to be very helpful when self-studying this popular textbook. The numbering of chapters and problems are based on the 2nd edition (10th printing with corrections, Jan 2013) available online [2].

The author was not able to solve all the exercises. Even for the solutions included we expect many mistakes and shortcomings. It would be of great help if people could suggest possible solutions or help us find and correct the errors so this solution manual can be continuously improved to benefit more interested readers. We are also open to all comments and criticisms. Our contact information can be found at the website holding this draft [3].

Acknowledgment

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Overview of Supervised Learning

Chapter 3

Linear Methods for Regression

Chapter 4

Linear Methods for Classification

Chapter 5

Basis Expansions and Regularization

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Kernel Smoothing Methods

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Model Assessment and Selection

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Model Inference and Averaging

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Additive Models, Trees, and Related Methods

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Boosting and Additive Trees

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Neural Networks

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Support Vector Machines and Flexible Discriminants

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Prototype Methods and Nearest-Neighbors

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Unsupervised Learning

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Random Forests

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Ensemble Learning

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Undirected Graphical Models

Chapter 18

High-Dimensional Problems

References

- [1] J. L. Weatherwax and D. Epstein, “A solution manual and notes for: The elements of statistical learning by jerome friedman, trevor hastie, and robert tibshirani,” June 2013. [Online]. Available: http://waxworksmath.com/Authors/G_M/Hastie/hastie.html
- [2] J. Friedman, T. Hastie, and R. Tibshirani, *The elements of statistical learning: Data Mining, Inference, and Prediction*, 2nd ed. Springer series in statistics Springer, Berlin, 2009.
- [3] W. Wu, “A partial solution manual for: The elements of statistical learning by jerome friedman, trevor hastie, and robert tibshirani,” 2016. [Online]. Available: <https://github.com/huragok/IDA>