Lecture 5: Support Vector Machines for Classification
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Description

We derive SVMs from a geometric perspective as well as the regularization perspective. Optimality and duality is introduced to demonstrate how large SVMs can be solved. A comparison is made between SVMs and RLSC. We introduce Regularized Least Squares regression and classification.

Suggested Reading

- Rifkin. **Everything Old Is New Again: A Fresh Look at Historical Approaches in Machine Learning.** MIT Ph.D. Thesis, 2002. <
- Evgeniou, Pontil and Poggio. **Regularization Networks and Support Vector Machines** Advances in Computational Mathematics, 2000.
- V. N. Vapnik. **The Nature of Statistical Learning Theory.** Springer, 1995.