

CSE 6740 A/ISyE 6740: Computational Data Analysis: Introductory lecture

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Last time

- ▶ Recap of shrinkage by ridge regression

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- ▶ Geometric view of compression by LASSO

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- ▶ Generalization of LASSO

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- ▶ Geometric view of compression by LASSO
- ▶ Generalization of LASSO
- ▶ ℓ^0 regularization and compressed sensing

Today

- ▶ Classification ERM

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- ▶ Logistic regression, Bayesian view

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- ▶ Perceptron algorithm and convergence proof

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- ▶ Support vector regression or maximum margin classification

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- ▶ Convex optimization

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- ▶ Perceptron algorithm and convergence proof
- ▶ Support vector regression or maximum margin classification
- ▶ Convex optimization
- ▶ Bias-complexity tradeoff

