

Lecture 7: Unsupervised Learning Techniques

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Description

To introduce some methods for unsupervised learning: Gaussian Mixtures, K-Means, ISOMAP, HLLE, Laplacian Eigenmaps.

Suggested Reading

- Hastie, Tibshirani, Friedman. **The Elements of Statistical Learning: Data Mining, Inference, and Prediction**. Springer 2001.
 - Tenenbaum, de Silva, Langford. **A Global Geometric Framework for Nonlinear Dimensionality Reduction**. Science 22 December 2000; Vol. 290. no. 5500, pp. 2319 - 2323.
 - Donoho, Grimes. **Hessian eigenmaps: Locally linear embedding techniques for high-dimensional data**. 2003.
 - M. Belkin, P. Niyogi. **Laplacian Eigenmaps for Dimensionality Reduction and Data Representation**. Neural Computation, June 2003; 15 (6):1373-1396.
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