ML Overview

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Projects

Supervised learning

* Neural networks
* k-Nearest neighbors
* Support vector machines

Randomized optimization

* Randomized Hill Climbing
* Simulated annealing
* Genetic Algorithms

Unsupervised Learning and Dimensionality Reduction

* Principle component analysis (PCA)
* Independent component analysis (ICA)
* Random Projection (RP)
* K-Means Clustering
* Expectation Maximization clustering

Content Covered

Decision Trees. Regression and classification differences. Basic Neural Networks. Ensemble Learning and boosting. SVMs (Kernel Methods). Bayesian learning. Clustering. Feature selection and transformation (PCA, ICA, RP).