Different models in machine learning

**1. Regression Algorithms**

* Ordinary Least Squares Regression (OLSR)
* Linear Regression
* Logistic Regression
* Stepwise Regression
* Multivariate Adaptive Regression Splines (MARS)
* Locally Estimated Scatterplot Smoothing (LOESS)

**2. Instance-based Algorithms**

* k-Nearest Neighbour (kNN)
* Learning Vector Quantization (LVQ)
* Self-Organizing Map (SOM)
* Locally Weighted Learning (LWL)

**3. Regularization Algorithms**

* Ridge Regression
* Least Absolute Shrinkage and Selection Operator (LASSO)
* Elastic Net
* Least-Angle Regression (LARS)

**4. Decision Tree Algorithms**

* Classification and Regression Tree (CART)
* Iterative Dichotomiser 3 (ID3)
* C4.5 and C5.0 (different versions of a powerful approach)
* Chi-squared Automatic Interaction Detection (CHAID)
* Decision Stump
* M5
* Conditional Decision Trees

**5. Bayesian Algorithms**

* Naive Bayes
* Gaussian Naive Bayes
* Multinomial Naive Bayes
* Averaged One-Dependence Estimators (AODE)
* Bayesian Belief Network (BBN)
* Bayesian Network (BN)

**6. Clustering Algorithms**

* k-Means
* k-Medians
* Expectation Maximisation (EM)
* Hierarchical Clustering

**7. Association Rule Learning Algorithms**

* Apriori algorithm
* Eclat algorithm

**8. Artificial Neural Network Algorithms**

* Perceptron
* Back-Propagation
* Hopfield Network
* Radial Basis Function Network (RBFN)

**9. Deep Learning Algorithms**

* Deep Boltzmann Machine (DBM)
* Deep Belief Networks (DBN)
* Convolutional Neural Network (CNN)
* Stacked Auto-Encoders

**10. Dimensionality Reduction Algorithms**

* Principal Component Analysis (PCA)
* Principal Component Regression (PCR)
* Partial Least Squares Regression (PLSR)
* Sammon Mapping
* Multidimensional Scaling (MDS)
* Projection Pursuit
* Linear Discriminant Analysis (LDA)
* Mixture Discriminant Analysis (MDA)
* Quadratic Discriminant Analysis (QDA)
* Flexible Discriminant Analysis (FDA)

**11. Ensemble Algorithms**

* Boosting
* Bootstrapped Aggregation (Bagging)
* AdaBoost
* Stacked Generalization (blending)
* Gradient Boosting Machines (GBM)
* Gradient Boosted Regression Trees (GBRT)
* Random Forest

**12. Other Algorithms**

* Computational intelligence (evolutionary algorithms, etc.)
* Computer Vision (CV)
* Natural Language Processing (NLP)
* Recommender Systems
* Reinforcement Learning
* Graphical Models