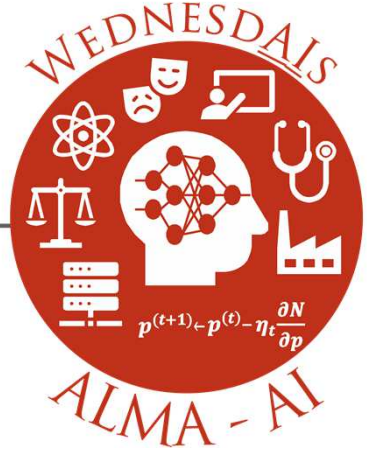

29/04/2020

SUPERVISED, BY REINFORCEMENT, UNSUPERVISED… *50 SHADES OF LEARNING*

Machine Learning (ML)

Machine learning involves computers discovering how they can perform tasks without being explicitly programmed to do so

Mehods and algorithms for ML

Analytical learning
Backpropagation
Bayesian statistics
Case-based reasoning
Decision tree learning
Inductive logic programming
Gaussian process regression
Genetic Programming
Group method of data handling
Kernel estimators
Learning Automata
Learning Classifier Systems
Minimum message length
Multilinear subspace learning
Naive Bayes classifier
Maximum entropy classifier
Conditional random field
Nearest Neighbor
Probably approximately correct learning

Ripple down rules
Symbolic machine learning
Subsymbolic machine learning
Support vector machines
Minimum Complexity Machines
Random Forests
Ensembles of Classifiers
Ordinal classification
Handling imbalanced datasets
Statistical relational learning
Proaftn

Q-learning
SARSA
Q-learning-lambda
SARSA-lambda
DQN
DDPG
A3C
NAF
TRPO
PPO
TD3
SAC

Clustering
hierarchical clustering
k-means
mixture models
DBSCAN
OPTICS algorithm
Local Outlier Factor
Neural Networks
Autoencoders
Deep Belief Nets
Hebbian Learning
Generative adversarial networks
Self-organizing map
Expectation–maximization
Method of moments
Blind signal separation techniques
Principal component analysis
Independent component analysis
Non-negative matrix factorization

Methods and algorithms for ML

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61 shades of Machine Learning

Methods and algorithms for ML

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Supervised ML

Q-learning
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SARSA-lambda
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DDPG
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Reinforcement ML

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Unsupervised ML

First to speak (alphabetical order)

- Alessio Bonfietti (MINDIT solutions)
- Michele Lombardi (UniBo)
- Samuele Salti (UniBo)

Enjoy!

(and interact)