Machine Learning: A Very General Guide

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Abstract

This is a simple document which will make some v. general notes on things connected to "Machine Learning". This document can be found at:
`https://github.com/d80b2t/Research_Notes/tree/master/MachineLearning`.

1 Introduction

From Wikipedia, retrieved, Mon Dec 5 16:28:49 PST 2016:

Machine learning is the subfield of computer science that "gives computers the ability to learn without being explicitly programmed" (Arthur Samuel, 1959). Evolved from the study of pattern recognition and computational learning theory in artificial intelligence, machine learning explores the study and construction of algorithms that can learn from and make predictions on data such algorithms overcome following strictly static program instructions by making data driven predictions or decisions, through building a model from sample inputs. Machine learning is employed in a range of computing tasks where designing and programming explicit algorithms is unfeasible; example applications include spam filtering, detection of network intruders or malicious insiders working towards a data breach, optical character recognition (OCR), search engines and computer vision.

Broadly, there are 3 types of Machine Learning Algorithms:
1. Supervised Learning
2. Unsupervised Learning
3. Reinforcement Learning

http://www.kdnuggets.com/2016/08/10-algorithms-machine-learning-engineers.html
And techniques/methods of ML:

- Linear Regression
- K-means
- Decision Trees
- Random Forest
- PCA
- SVM: `Concise technical overview`.
- Artificial Neural Networks (ANN)

With links from Machine Learning Algorithms: A Concise Technical Overview, Matthew Mayo.

3 Useful URLs and References

http://www.zdnet.com/topic/how-to-implement-ai-and-machine-learning/