PROJECT ML

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Machine Learning Methods
Group 5

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Abbildungsverzeichnis

1 Einleitung

What is this paper for? What are the main goals?

E.g. this is for ourself. We want to build an overview about the common algorithms, how they work and their advantages/disadvatages.

2 Was ist ML?

First some words about ML. Maybe from Lotz, first chapter? Next we could use this grapic to visualize the topic.

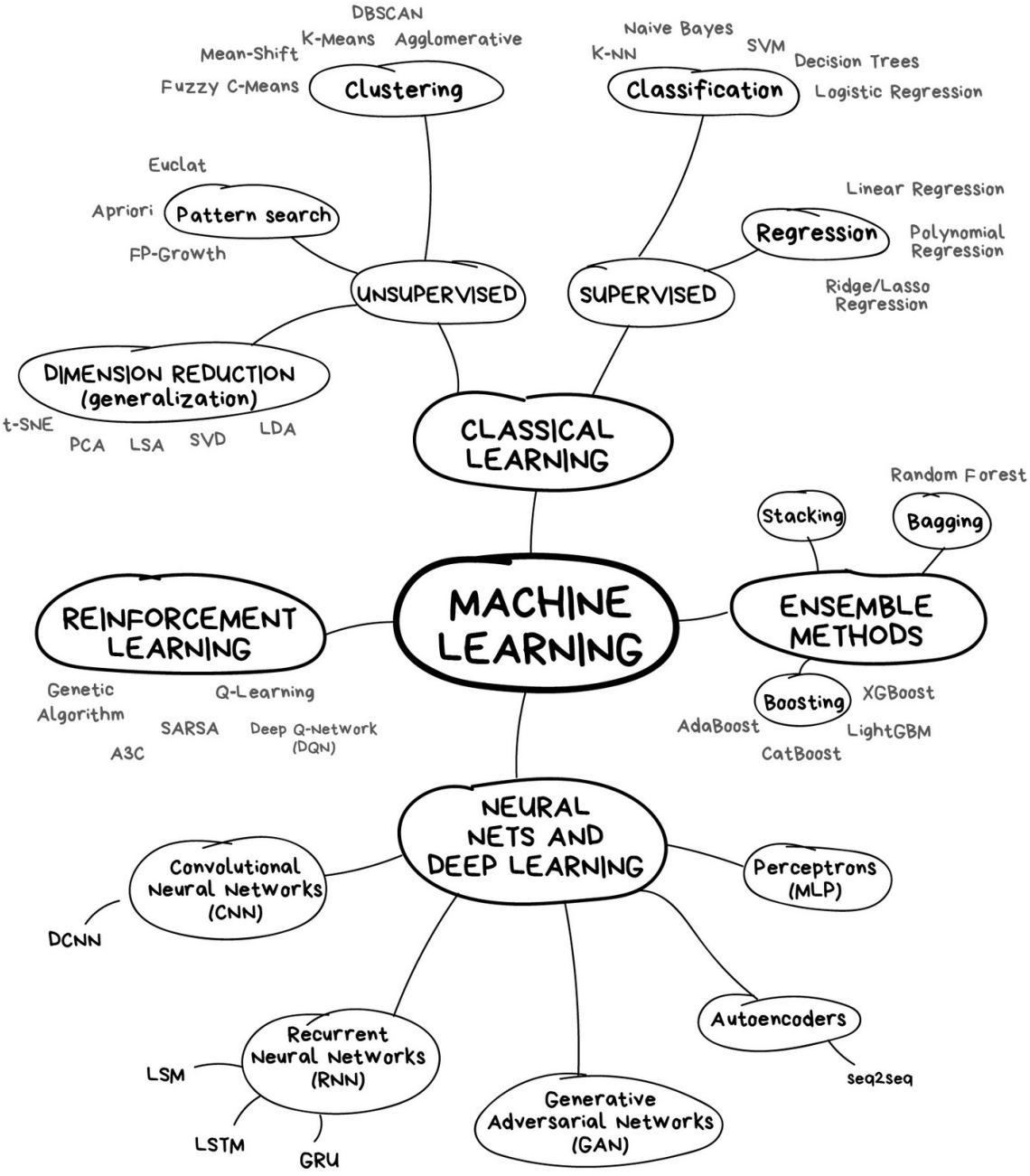

Abbildung 1: ML-Overview

Finally i would sugest to finish with a Table.

I would structure it like: Algorithm, Main Idea(in like 3-5 sentences), possible application(image processing, clustering, etc.) advantages, disadvantages

2.1 Basis ML 1(maybe Data)

We could speak a lil bit more about data in this topic?

2.2 Basis ML 2

TBA

3 Classical learning

Difference between Supervised unsupervised.

3.1 Supervised

Um einen Abfragepunkt zu klassifizieren, nutzt diese Methode die gespeicherten

3.1.1 Regression

Like for all other subsubsections i would sugest that we structure the Algorithms like in the table at Ch.2.(**Algorithm**, **possible application**, etc.), but also add some links etc. Trainingsdaten und berechnet den Abstand zu den jeweiligen Merkmalen. In

3.1.2 Classification

See regression

3.2 Unsupervised

See regression

3.2.1 Clustering

See regression

3.2.2 Pattern search

See regression

3.2.3 Dimension Reduction

See regression

4 Neural nets and deep learning

Maybe we can use the insights we generate while solving our problem to fill this chapter.

4.1 Convolutional Neural Networks CNN

4.2 Recurrent Neural Networks RNN

4.3 Generative adversarial networks GAN

4.4 Autoencoders

4.5 Perceptrons MLP

5 Ensemble Methods

5.1 Bagging

5.2 Boosting

5.3 Stacking

6 Reinforcement learning

Literaturverzeichnis

[1] DEUTSCHE AKTUARVEREINIGUNG E.V., 2012: Unisex-Tarifierung, abgerufen am 10. November 2019: https://aktuar.de/fachartikelaktuaraktuell/Lebensversicherung_Unisex_Aktuar-aktuell_19.pdf#search=unisex

[2] ERTEL, W. (2016): *Grundkurs Künstliche Intelligenz*. Springer Vieweg, Wiesbaden. 4. Auflage.