Chapter 0

**Usage of ML**

Get exited, Inspired, Amount of data and how to access them.

**0.1 Applications of Machine Learning**

1. Facial Recognition: Eg: facebook.
2. Games without joystick. Recognize action, movement for game control.

* Random forest is udsed.

1. In VR movement. ML algorithm detecting your movement.
2. Text to speech, voice recognition, voice typing
3. Robot companion.

* Reinforcement learning used.

1. Recommender system, or a recommendation system: ***Amazon***, ***Netflix***, ***audible***. ***Facebook*** ads, ***Youtube*** video suggestion.
2. Medicines
3. In space-satellite for recognize certain aria of earth. Image processing.
4. Explore other planet, Space-Robot.

**0.2 ML is the Future**

* Data is everywhere:

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| --- | --- |
| Data exhaust. | 1 letter = 1byte  1 page = 1 kilo byte, 1000 letter  1 book = 1000 page, 1 mega byte  1 DNA, Gnome = 1000 books, 1 giga byte  1 persons life (80 year) as video(hd) = 1 tb  1 Amazon Rainforest 700, 000 000 000 trees, as paper and fill those page = 1 petabyte  1 Exabyte = 1000 petabyte as whole world.   * Exponential growth of data:   We need ML to explore that ***high amount of data***. Only ML-Algorithms can explore these data. |