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Machine Learning and Artificial Intelligence

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Machine Learning and Artificial Intelligence

Abstract

Machine Learning (ML) is a sub-area of artificial intelligence, whereby the term refers to the ability of IT systems to independently find solutions to problems by recognizing patterns in databases. In other words: Machine Learning enables IT systems to recognize patterns on the basis of existing algorithms and data sets and to develop adequate solution concepts. Therefore, in Machine Learning, artificial knowledge is generated on the basis of experience.

Artificial Intelligence (AI) is a branch of Computer Science that focuses on creating intelligent machines which thus works as in the form of human beings or simply human beings. Artificial intelligence makes it possible for machines to learn from experience, adjust to new inputs and perform human-like tasks.

One of the main tasks of Machine Learning is to automate human tasks. Some of these tasks are simple and repetitive, gets far more interesting when the computer has to make decisions about problems that are far more difficult to formalize.

When approaching machine learning problems, these are the steps you will need to go through: Setting acceptance criteria, Cleaning your data and maximizing ist information content, Choosing the most optimal inference approach, test and repeat.

The most common problems of Artificial Intelligence implementation: Different development approach, a system is only as good as the data it learns from, no clear view on how insight is generated.

One thing that is necessary to optimize the result is a skilled team that can write or adapt publicly available algorithms, select the right algorithm for the desired result and combine algorithms as needed to optimize the result.

The main purpose of this work what the definitions are for AI, machine learning (ML) and their role of development in the future of humanity. There is some argument that AI and ML are each individual technologies. I view AI/ML as successive stages of computer automation and analytics that are built on a common platform and which are built on the following main chain: Data inputs -> Algorithmic forecast model -> Forecast accuracy data -> Final report.