

Abstract

This thesis aims at defining the opportunities and advantages a company in the medical sector can acquire with the aid of data science. Among the resulting possibilities, the focus lies also on the different methods, approaches and subfields of data science as well as positive examples and ethical considerations.

Data collection, processing, and evaluation are just logical steps as more and more information becomes accessible. Every year, more data is produced than in the previous year and the methods with which this data can be examined are also growing rapidly.

Besides all these theoretical aspects, a data collection and subsequent analysis of data from a company in the medical field will be carried out for a better understanding of the topic covered. The experiment is based on a machine learning algorithm.

This self-conducted data research and the following analysis are a step forward to understand what in general data science is about and how it can be used to give advantages to companies, research institutions, non-profit organizations and more as well as to the patients themselves. Also, possible third parties like insurance companies for example can profit from such findings. The goal of every field of science is to bring the public and individual groups further forward.

The usage of data science has already shown remarkable results in the medical industry as well as in all other fields where it is applied.

Especially the field of medicine looks promising to be one of the biggest beneficiaries of these modern methods.