Abstract

The main purpose of my MSc thesis is to plan and realize a data pipeline, which can allow data-driven projects to be implemented in the field of automotive electrical motor testing. Nowadays machine learning and big data technologies are able to open up new market opportunities for several industries. In specific areas of expertise, available technologies and methods can be effectively applied in different ways.

In the introduction machine learning and big data technologies and the potential of data-driven projects in the specific field of electrical motor testing will be reviewed.

The second chapter will cover a data pipeline system design which can be used to apply big data applications, and the description of indentified development activities. After that, detailed description of used technologies and system components will be presented.

The development process will be implemented with a pilot project, which will be specified in the fourth section. In the following chapters the data handling developments and the implementation of distributed big data signal processing will be fully reviewed.

Lastly conclusions will be drawn and potential areas for further improvements will be identified.