Towards impressive titles

Tobias Axelsson

2 februari 2018

Acknowledgements

I am a student blalsadf

Abstract

asdasd

Sammanfattning

asdasdasd

Contents

Chapter 1

Introduction

The chapter starts with a background describing who Trafikverket are, why road condition monitoring is important to them, how road condition data is collected today and why the technology behind it needs improvement. An objective for the project is defined followed by its delimitations. Lastly, a thesis structure is presented to simplify navigation through different parts of the project.

1.1 Background

1.2 Objective

The objective is to determine if a road surface temperature sensor can be simulated with prediction models based on historic data from road weather information systems.

1.3 Delimitations

1.4 Thesis structure

Chapter 2

Literature Review

The chapter gives both general and specific information on theory used for this project. Mathematical statistics, regression and machine learning are covered in the first three sections, providing a general understanding of the field of study. Specific machine learning models are explained in the final three sections of the chapter.

2.1 Machine learning

Two of the most common machine learning tasks:

- Classification: The computer is asked to specify which category a certain input belongs to. An example of a classification task is
- Regression: asdfsdf

[1] Something that [2]

2.1.1 Neural networks

Chapter 3

Method

The chapter covers strategies and methods used to achieve the objective of the project. Reasons for each choice of method or strategy are motivated and described in the sections, which are ordered chronologically.

3.1 Research purpose

3.2 Research approach

3.3 Research strategy

3.4 Tools

Chapter 4

Implementation and results

Describe the process of collecting data, training and implementing machine learning algorithms with different methods.

4.1 Data collection

4.2 Neural network

4.2.1 First iteration

4.2.2 Second iteration

Chapter 5

Analysis

Analyze data from the implementation with respect to the objective of the study.

5.1 Neural network

Chapter 6

Conclusions and recommendations

6.1 Conclusions

6.2 Recommendations

Chapter 7

Discussion

7.1 Thesis process

7.2 Validity and reliability

Validity and reliability of the conclusions. Needed?

7.3 Future work

Bibliography

[1] I. Goodfellow, Y. Bengio, and A. Courville, *Deep Learning*. MIT Press, 2016, `http://www.deeplearningbook.org`.

[2] J. Brownlee, *Difference Between Classification and Regression in Machine Learning*, `https://machinelearningmastery.com/classification-versus-regression-in-machine-learning/`, Accessed on 2018-01-29, 2017.