

RWTH Aachen University
Software Engineering Group

Comparison of Deep Learning Architectures on Simulated Environments

Seminar Paper

presented by

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Kurzfassung

Eine kurze Zusammenfassung der Arbeit.

Abstract

A short abstract of this thesis.

Aufgabenstellung

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Chapter 1

Introduction

General introduction to the topic

1.1 Available Deep Learning Approaches

The things one needs to know in order to understand everything that follows based on [CSKX15]

1.2 Deep Learning Languages

1.2.1 CNNArch

general and some more in depth information about CNNArch based on [TvWH17]

1.2.2 MxNet

general information from [CLL⁺15]

Chapter 2

Running Example

The example net, e.g., AlexNet [KSH12] or ZFNet [ZF14]

2.1 Implementation

Implementation of the net using CNNArch or MxNet (maybe discuss already implemented approaches to cover more details)

2.2 Training

The training of the implemented net based on the KITTI dataset [GLSU13]

Chapter 3

Evaluation

Test the trained set in a simulation environment

3.1 MontiSim

Short introduction of the tool used to evaluate the net in [Rea17]

3.2 Results

Evaluating the results of the test of the net in MontiSim

Chapter 4

Conclusion

Conclusion of differences and similarities between the frameworks

Also a general conclusion based on results and [Grz17]

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