Example Title of your Thesis

Bachelor thesis in Computer Science by Max Mustermann
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Erklärung zur Abschlussarbeit gemäß §22 Abs. 7 und §23 Abs. 7 APB der TU Darmstadt

Hiermit versichere ich, Max Mustermann, die vorliegende Bachelorarbeit ohne Hilfe Dritter und nur mit den angegebenen Quellen und Hilfsmitteln angefertigt zu haben. Alle Stellen, die Quellen entnommen wurden, sind als solche kenntlich gemacht worden. Diese Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen.

Mir ist bekannt, dass im Fall eines Plagiats (§38 Abs. 2 APB) ein Täuschungsversuch vorliegt, der dazu führt, dass die Arbeit mit 5,0 bewertet und damit ein Prüfungsversuch verbraucht wird. Abschlussarbeiten dürfen nur einmal wiederholt werden.

Bei der abgegebenen Thesis stimmen die schriftliche und die zur Archivierung eingereichte elektronische Fassung gemäß §23 Abs. 7 APB überein.

Bei einer Thesis des Fachbereichs Architektur entspricht die eingereichte elektronische Fassung dem vorgestellten Modell und den vorgelegten Plänen.

Darmstadt, den 22. Oktober 2019

Signature

Abstract

Write a short summary of your thesis. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Contents

List of Figures

List of Abbreviations

API Application Programming Interface

CQ Completion Queue

DBMS Database Management System

DMA Direct Memory Access

HPC High Performance Computing

IB InfiniBand

MPI Message Passing Interface

NIC Network Interface Controller

OLAP On-line Analytical Processing

OLTP On-line Transactional Processing

QP Queue Pair

RAM Random Access Memory

RDMA Remote Direct Memory Access

RNIC RDMA-enabled Network Interface Controller

RoCE RDMA over Converged Ethernet

RQ Receive Queue

RR Receive Request

SDN Software Defined Networking

SQ Send Queue

SR Send Request

TLB Translation Lookaside Buffer

TCP/IP Transmission Control Protocol/Internet Protocol

1. Introduction

1.1. Context and Motivation

This is a dummy citation [1]. And this is an example of using an acronym which was defined previously Remote Direct Memory Access (RDMA). The long form of the acronym is only used the first time, the short form is RDMA.

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1.2. Problem Statement

1.3. Goals and Contributions

1.4. Thesis Outline

Describe what the thesis contains

2. Background

In order to grant a better understanding of the subsequent chapters, this chapter is going to provide a background to the terms and concepts used in the thesis...

2.1. Remote Direct Memory Access (RDMA)

RDMA is an alternative to the traditional Transmission Control Protocol/Internet Protocol (TCP/IP) network communication protocols. In short, RDMA can provide access to a remote machine's memory without performing unnecessary intermediate copies of the memory while also bypassing the CPU of the remote machine.
RDMA has been gaining traction in the academic community (Figure 2.1). This growing popularity is because RDMA overcomes some limitations by TCP/IP, and by doing so, helps to provide high bandwidth and low latency. Therefore, in order to explain RDMA, the shortcomings of TCP/IP socket programming is stated, and thus motivating the benefit of RDMA.

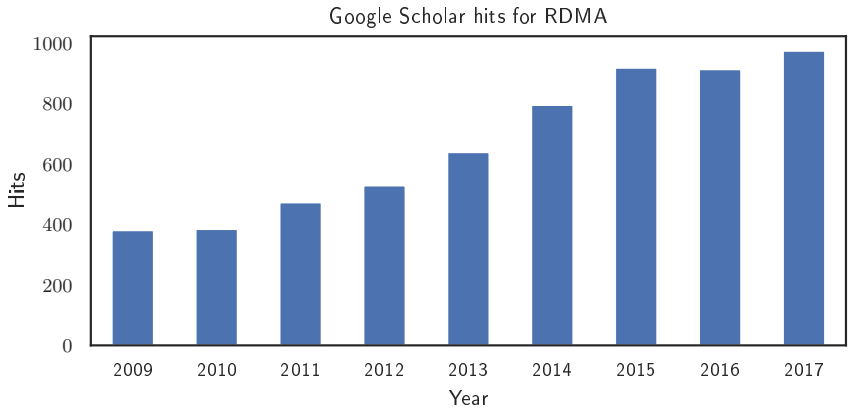

Figure 2.1.: Google Scholar hits of RDMA keyword

3. Design

This chapter presents the design behind...

3.1. Requirement Analysis

In order to better understand the requirements, the different trends in... Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

4. Implementation

Explain how the concepts you developed where implemented. Focus on interesting/challenging details.

4.1. Implementation Overview

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5. Evaluation

To evaluate the performance and usefulness of…

5.1. Experimental setup

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

6. Conclusion and Future Work

This chapter first summarizes and concludes the contributions of this thesis by presenting the strengths behind the design concepts and concluding upon the evaluation. Following, an outlook of research challenges for future work is given.

6.1. Conclusion

Mirror the contributions given in intro.

Conclude on the evaluation Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

6.2. Future Work

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Bibliography

[1] M. Wasi-ur-Rahman et al. “High-Performance RDMA-based Design of Hadoop MapReduce over InfiniBand”. In: 2013 IEEE International Symposium on Parallel Distributed Processing, Workshops and Phd Forum. May 2013, pp. 1908–1917. DOI: 10.1109/IPDPSW.2013.238.

A. Experiment Parameters

The experiments conducted in the Evaluation Chapter were executed with the following DPI parameters. Note, an *x* indicates the parameter has been varied for the experiment.

	Message size	Segment size	Ring size (segments)	Internal output buffer size
Exp. A	*x*	64 MiB	10	8 MiB
Exp. B	*x*	*x*	100	4 MiB
Exp. C	4 KiB	64 MiB	10	*x*
Exp. D	4 KiB	32 MiB	*x*	4 MiB
Exp. E	4 KiB	*x*	*x*	4 MiB
Exp. F	*x*	32 MiB	50	8 MiB
Exp. G	*x*	64 MiB	50	4 MiB
Exp. H	8 KiB	4 MiB	*x*	2 MiB