

UNIVERSITY COLLEGE CORK

DEPARTMENT OF COMPUTER SCIENCE

FINAL-YEAR PROJECT
BSc IN COMPUTER SCIENCE

Implementing and Augmenting New Distributed and Parallel Algorithms

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Abstract

Large scale distributed storage systems can emulate fault-tolerant atomic storage in a variety of ways. The ABD algorithm uses a replication-based approach to this problem, incurring high storage costs to ensure resiliency, while the SODA_w algorithm implements erasure codes to drastically lower this storage cost. This paper will present these two algorithms and will use new experimental data to compare their performances and subsequent costs.

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Chapter 1

Introduction

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