Comenius University Bratislava
Faculty of Mathematics, Physics and Informatics

THESIS ASSIGNMENT

Name and Surname:	Bc. Andrej Korman
Study programme:	Computer Science (Single degree study, master II. deg., full time form)
Field of Study:	Computer Science
Type of Thesis:	Diploma Thesis
Language of Thesis:	English
Secondary language:	Slovak

Title: Engineering Compressed Bit Vectors

Annotation: Succinct data structures take only very little space on top of the information-theoretic lower bound. Efficient representations are known for various data structures ranging from strings, trees and graphs to grids and text indices. Most of these more complicated data structures use succinct bit vector (with operations access, rank and select) as a basic building block. Thus, improving bit vectors is interesting not only from the point of view of designing fundamental data structures - it has potential practical benefits for other succinct data structures as well. The goal of this thesis is to explore representations of compressed bit vector, develop an efficient implementation, and compare its performance with existing solutions.

Supervisor:	Mgr. Jakub Kováč, PhD.
Department:	FMFI.KI - Department of Computer Science
Head of department:	prof. RNDr. Martin Škoviera, PhD.
Assigned:	20.08.2021
Approved:	21.08.2021

prof. RNDr. Rastislav Kráľovič, PhD.
Guarantor of Study Programme

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Student

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Supervisor