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FACULTY
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Master's thesis

Exploring use of non-negative matrix factorization for lossy audio compression

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February 18, 2019

Acknowledgements

TODO

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Abstrakt

TODO

Klíčová slova TODO

Abstract

Non-negative matrix factorization has been successfully applied in various scenarios, mostly for analyzing large chunks of data and finding patterns in them for later use. Due to the nature of NMF, it has also seen some use in the field of image compression.

The purpose of this thesis is to research possible uses of non-negative matrix factorization in the problem of audio compression. A reference audio encoder and decoder using NMF will be implemented and various experiments using this encoder will be conducted. The results will be measured and compared to existing audio compressing solutions.

Keywords lossy, audio, compression, processing, nmf, encoding

Contents

List of Figures

Introduction

TODO

Part I

Background

Chapter 1

Digital audio

Chapter 2

Non-negative matrix factorization

Part II

Audio compression using NMF

Chapter 3

Design

3.1 State of the art

Chapter 4

Implementation

4.1 Encoder

4.2 Decoder

Chapter 5

Evaluation

Conclusion

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Appendix A

Acronyms

todo TODO

Appendix B

Contents of enclosed CD

- `readme.txt` ..... the file with CD contents description
- `exe` ..... the directory with executables
- `src` ..... the directory of source codes
  - `wbdcm` ..... implementation sources
  - `thesis` ..... the directory of LaTeX source codes of the thesis
- `text` ..... the thesis text directory
  - `thesis.pdf` ..... the thesis text in PDF format
  - `thesis.ps` ..... the thesis text in PS format