

## MASARYK UNIVERSITY Faculty of Informatics

## MASTER'S THESIS DESCRIPTION

Student: Bc. Vít Novotný

**Programme:** Applied Informatics

Field of Study: Applied Informatics

**Specialization:** With no specialization

Field guarantor: prof. RNDr. Jiří Barnat, Ph.D. (AP)

**Thesis supervisor:** doc. RNDr. Petr Sojka, Ph.D.

**Consultant:** RNDr. Radim Řehůřek, Ph.D.

**Department:** Department of Computer Graphics and Design

Title of the thesis/dissertation: Vektorové reprezentace ve vyhledávání znalostí

**Title of the thesis in English:** Vector Space Representations in Information Retrieval

**Description:** The student will attend the ACL 2017 conference. In response to the results presen-

ted at the conference, he/she will carry out a series of experiments in the field of

information retrieval (IR).

The student will review the state of the art in vector representations of both text and multimedia. In the experiments, he/she will evaluate the performance of both naive histogram-based models and state-of-the-art neural network architectures. He/she

will make use of public datasets where available.

Literature: MANNING, Christopher D., Prabhakar RAGHAVAN and Hinrich SCHÜTZE. Intro-

duction to information retrieval. 1st pub. Cambridge: Cambridge University Press,

2008. xxi, 482. ISBN 9780521865715.

ZEZULA, Pavel. Similarity search: the metric space approach. New York, NY: Springer,

2006. xvi, 220. ISBN 0387291466.

Tomáš Mikolov, et al. Efficient estimation of word representations in vector space.

arXiv preprint arXiv:1301.3781, 2013.