UNIVERZITA KOMENSKÉHO V BRATISLAVE FAKULTA MATEMATIKY, FYZIKY A INFORMATIKY

GENOME COMPARISON BASED ON RAW READ AND PAIRED READ DATA. DIPLOMA THESIS

2016 Vladimír Macko

UNIVERZITA KOMENSKÉHO V BRATISLAVE FAKULTA MATEMATIKY, FYZIKY A INFORMATIKY

GENOME COMPARISON BASED ON RAW READ AND PAIRED READ DATA.

DIPLOMA THESIS

Študijný program: Informatika

Študijný odbor: 2508 Informatika

Školiace pracovisko: Katedra informatiky

Školiteľ: Mgr. Tomáš Vinař, PhD

Bratislava, 2016

Vladimír Macko



Abstrakt

Kľúčové slová:

Abstract

Keywords:

Obsah

Úvod			1
1		nething else section	2
2	Fina 2.1	Subfinal	3 3
$\mathbf{A}_{]}$	Appendix A		7

Zoznam obrázkov

Zoznam tabuliek

Introduction

Kapitola 1

Something else

1.1 section

Kapitola 2

Final

- 2.1 Subfinal
- 2.1.1 sub sub final

Literatúra

- [1] Databáza patentov. http://patents.reedtech.com/pgrbft.php. (navštívené dňa 20.4.2016).
- [2] Databáza vedeckých článkov zo životných vied. http://www.ncbi.nlm.nih.gov/pubmed. (navštívené dňa 15.1.2016).
- [3] Googlom zverejnená databáza patentov. https://www.google.com/googlebooks/uspto-patents.html. (navštívené dňa 15.1.2016).
- [4] Zoznam desiatich najprofitujúcejších priemyslov v usa za rok 2014 podľa forbes. http://www.forbes.com/sites/liyanchen/2015/09/23/the-most-profitable-industries-in-2015/#6410eb587712. (navštívené dňa 2.3.2016).
- [5] Nástroj od googlu na vyhľadávanie súvisiacich publikácií k patentom. https://www.google.com/patents/related, 2016. (navštívené dňa 27.1.2016).
- [6] Akiko Aizawa. An information-theoretic perspective of thidf measures. *Information Processing & Management*, 39(1):45–65, 2003.
- [7] James Bergstra, Olivier Breuleux, Frédéric Bastien, Pascal Lamblin, Razvan Pascanu, Guillaume Desjardins, Joseph Turian, David Warde-Farley, and Yoshua Bengio. Theano: a CPU and GPU math expression compiler. In *Proceedings of the Python for Scientific Computing Conference (SciPy)*, June 2010. Oral Presentation.
- [8] Steven Bird, Ewan Klein, and Edward Loper. Natural language processing with Python. Ö'Reilly Media, Inc.", 2009.
- [9] BSR tím. Know your field of research! www.scicurve.com, 2014. (navštívené dňa 28.1.2016).
- [10] Aaron M Cohen and William R Hersh. A survey of current work in biomedical text mining. *Briefings in bioinformatics*, 6(1):57–71, 2005.

LITERATÚRA 5

[11] Hal Daumé III and Daniel Marcu. Induction of word and phrase alignments for automatic document summarization. Computational Linguistics, 31(4):505–530, 2005.

- [12] Atsushi Fujii. Enhancing patent retrieval by citation analysis. In *Proceedings of the* 30th annual international ACM SIGIR conference on Research and development in information retrieval, pages 793–794. ACM, 2007.
- [13] Kayvan Kousha and Mike Thelwall. Patent citation analysis with google. *Journal* of the Association for Information Science and Technology, 2015.
- [14] Thomas K Landauer, Peter W Foltz, and Darrell Laham. An introduction to latent semantic analysis. *Discourse processes*, 25(2-3):259–284, 1998.
- [15] Quoc V Le and Tomas Mikolov. Distributed representations of sentences and documents. arXiv preprint arXiv:1405.4053, 2014.
- [16] Christopher D Manning, Prabhakar Raghavan, Hinrich Schütze, et al. *Introduction to information retrieval*, volume 1. Cambridge university press Cambridge, 2008.
- [17] Tomas Mikolov, Ilya Sutskever, Kai Chen, Greg S Corrado, and Jeff Dean. Distributed representations of words and phrases and their compositionality. In Advances in neural information processing systems, pages 3111–3119, 2013.
- [18] Fernando Pérez and Brian E. Granger. IPython: a system for interactive scientific computing. Computing in Science and Engineering, 9(3):21–29, May 2007.
- [19] PostgreSQL Global Development Group. PostgreSQL. http://www.postgresql.org, 2016. (navštívené dňa 23.1.2016).
- [20] PostgreSQL Global Development Group. Úvod do práce s tsv vektormi a dátovými typmi. http://www.postgresql.org/docs/8.3/static/datatype-textsearch.html, 2016. (navštívené dňa 18.1.2016).
- [21] Gerard Salton and Christopher Buckley. Term-weighting approaches in automatic text retrieval. *Information processing & management*, 24(5):513–523, 1988.
- [22] USPTO. Návod na používanie portálu USPTO. http://www.uspto.gov/sites/default/files/documents/7_Step_US_Patent_Search_Strategy_Guide_ 2015_rev.pdf, 2015. (navštívené dňa 22.1.2016).
- [23] Shuo Xu, Lijun Zhu, Xiaodong Qiao, Qingwei Shi, and Jie Gui. Topic linkages between papers and patents. In *Proceedings of the 4th International Conference on Advanced Science and Technology*, pages 176–183. Science and Engineering Research Support soCiety (SERSC), 2012.

LITERATÚRA 6

[24] Xiaobing Xue and W Bruce Croft. Automatic query generation for patent search. In *Proceedings of the 18th ACM conference on Information and knowledge management*, pages 2037–2040. ACM, 2009.

[25] Mo Yu and Mark Dredze. Learning composition models for phrase embeddings. Transactions of the Association for Computational Linguistics, 3:227–242, 2015.

Appendix A

TODO