

Márton Makrai

CV

1112 Budapest
Menyecske utca 5. 9. em. 53.
☎ +36 20 773 8807
✉ makrai.marton@nytud.mta.hu
🌐 makrai



Innumerable roads lead to "knowledge" and we try to explore many of them. (Findler 1979)

Studies

- 2010–2015 **PhD absolved in theoretical linguistics**, *Doctoral School of Linguistics, Eötvös Loránd University*, advisor: András Kornai, dissertation in progress: *Meaning representations*.
- 2015 **deep learning for machine translation**, *winter school*, <http://dl4mt.computing.dcu.ie>.
- 2012 **Natural language processing**, *Stanford University*, online course. D. Jurafsky and C. Manning
- 2012 **Machine Learning**, *Stanford University*, online course, A. Ng.
- 2004–2010 **MSc in Mathematics**, *Budapest University of Technology and Economics*, algebra major, graph theory and formal languages minor, thesis: *Subregular categorial grammars*, categorial grammars that can be learned in formal linguistics sense (*identification in the limit*).

Work experience

- 2014– **research assistant**, *Department of Language Technology, Research Institute for Linguistics of the Hungarian Academy of Sciences*.
EFNILEX: machine translation tools for lexicography in European languages, CLIQZ: web search, infra2: spoken language detection
- 2010–2013 **software developer**, *MTA SZTAKI, Research Group for Human Language Technologies*.
general human language understanding, the 41lang conceptual lexicon; formal linguistic study of learnability of human languages

Computer skills

- prog lang Python
- tool scikit-learn, git, \LaTeX
- operating system Linux, Mac OS X, Windows

Education

2013 and 2014 autumn **effective methods in language description**, *theoretical linguistics program of the Hungarian Academy of Sciences and Eötvös Loránd University*, finite automata and regular expressions for linguists.
<http://www.budling.hu/~makrai/>

Awards

- 2013 **Young Author Best Paper at the Hungarian Computational Linguistics Conference (MSZNY), divided**, *The 4lang conceptual dictionary*.
- 2014 **Young Author Best Paper at MSZNY, divided**, *Deep cases in the 4lang conceptual dictionary*.

Languages

Hungarian native
English C1
German B2

Projects and selected publications

- EFNILEX (2013-15): Dictionary generation from vector space language models (Makrai, 2015a,b)
- 4lang : For a general introduction of 4lang and the human language understanding project at SZTAKI (2010-13), see Kornai and Makrai (2013) and Kornai et al. (2015). Vector space language models computed from 4lang and the appearance of antonym in these were presented in Makrai et al. (2013). On handling the relationship between predicates and arguments in 4lang , refer to Makrai (2014)

The complete list: <http://scholar.google.hu/citations?user=ZxyfgJsAAAAJ>

Publications

András Kornai and Márton Makrai. A 4lang fogalmi szótár. In Attila Tanács and Veronika Vincze, editors, *IX. Magyar Számítógépes Nyelvészeti Konferencia*, pages 62–70, 2013.

András Kornai, Judit Ács, Márton Makrai, Dávid Márk Nemeskey, Katalin Pajkossy, and Gábor Recski. Competence in lexical semantics. In *Proceedings of the Fourth Joint Conference on Lexical and Computational Semantics*, pages 165–175, Denver, Colorado, June 2015. Association for Computational Linguistics. URL <http://www.aclweb.org/anthology/S15-1019>.

Márton Makrai. Deep cases in the 4lang concept lexicon. In Attila Tanács, Viktor Varga, and Veronika Vincze, editors, *X. Magyar Számítógépes Nyelvészeti Konferencia (MSZNY 2014)*, pages 50–57 (in Hungarian), 387 (English abstract), 2014. ISBN 978-963-306-246-3.

Márton Makrai. Comparison of distributed language models on medium-resourced languages. In Attila Tanács, Viktor Varga, and Veronika Vincze, editors, *XI. Magyar Számítógépes Nyelvészeti Konferencia (MSZNY 2015)*, 2015a. ISBN 978-963-306-359-0.

Márton Makrai, Dávid Márk Nemeskey, and András Kornai. Applicative structure in vector space models. In *Proceedings of the Workshop on Continuous Vector Space Models and their Compositionality*, pages 59–63, Sofia, Bulgaria, August 2013. ACL. URL <http://www.aclweb.org/anthology/W13-3207>.

Márton Makrai. Disambiguated linear word translation in medium european languages. In *IEEE 6th International Conference on Cognitive Infocommunications – CogInfoCom 2015*, October 2015b.

Interests

- psycholinguistics
- amateur chamber music