Jindřich Helcl

Curriculum Vitae

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Education

2014–present **PhD.**, *Institute of Formal and Applied Linguistics, Charles University*, Prague.
Thesis topic: Using External Information in Neural Machine Translation

2011–2014 **Mgr.**, *Computational Linguistics, Charles University*, Prague.

2007–2011 **Bc.**, *Computer Science, Charles University*, Prague.

Master Thesis

name *Multilingual Collocation Database*

supervisor prof. RNDr. Jan Hajič, Dr.

description A database of Czech and English collocation retrieved from big data collections using statistical methods.

Research Internships

2019 **Microsoft**.
Four-month research internship; non-autoregressive models for neural machine translation

2017–2018 **Google**.
Four-month research internship; deep learning for NLP

2016–2017 **University of Edinburgh**.
Four-month research internship; neural machine translation

Work Experience

2017–present **Research Assistant**, *Institute of Formal and Applied Linguistics, Charles University*, Prague.
Research on multimodal translation and improving neural MT with linguistic information.

2016 **Research Fellow**, *Deutsche Forschungszentrum für Künstliche Intelligenz (DFKI)*, Berlin.
Five-month research fellowship; neural machine translation

2012–2016 **Java/C++ Developer**, *IBM Prague R&D Lab*, Prague.
Student position

2014–2015 **Data Analysis Expert**, *Technological agency of the Czech Republic (TAČR)*, Prague.
Document-level clustering on large data collections.

2011–2012 **PHP developer**, *Intya, s.r.o*, Prague.
Development of e-shop applications and other web pages.

Selected Bibliography

2018 Jindřich Libovický, Jindřich Helcl: End-to-End Non-Autoregressive Neural Machine Translation with Connectionist Temporal Classification. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing EMNLP 2018*

2018 Jindřich Libovický, Jindřich Helcl, David Mareček: Input Combination Strategies for Multi-Source Transformer Decoder. In *Proceedings of the Third Conference on Machine Translation (WMT)*

2018 Jindřich Helcl, Jindřich Libovický, Dušan Variš: CUNI System for WMT18 Multimodal Tranlsation Task. In *Proceedings of the Third Conference on Machine Translation (WMT)*

2017 Antonio Valerio Miceli Barone, Jindřich Helcl, Rico Sennrich, Barry Haddow and Alexandra Birch: Deep Architectures for Neural Machine Translation. In *Proceedings of the Second Conference on Machine Translation (WMT)*

2017 Ondřej Bojar, Jindřich Helcl, Tom Kocmi, Jindřich Libovický, Tomáš Musil: Results of the WMT17 Neural MT Training Task. In *Proceedings of the Second Conference on Machine Translation*

2017 Jindřich Helcl, Jindřich Libovický: CUNI System for the WMT17 Multimodal Translation Task. In *Proceedings of the Second Conference on Machine Translation (WMT)*

2017 Jindřich Libovický, Jindřich Helcl: Attention Strategies for Multi-Source Sequence-to-Sequence Learning. In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (ACL)*

2017 Jindřich Helcl, Jindřich Libovický: Neural Monkey: An Open-Source Toolkit for Sequence Learning. In *The Prague Bulletin of Mathematical Linguistics*

2016 Eleftherios Avramidis, Vivien Macketanz, Aljoscha Burchardt, Jindřich Helcl, Hans Uszkoreit: Deeper Machine Translation and Evaluation for German. In *Proceedings of the 2nd Deep Machine Translation Workshop*

2016 Ondřej Bojar, Ondřej Cífka, Jindřich Helcl, Tom Kocmi, Roman Sudarikov: UFAL Submissions to the IWSLT 2016 MT Track. In *Proceedings of the ninth International Workshop on Spoken Language Translation (IWSLT)*

2016 Jindřich Libovický, Jindřich Helcl, Marek Tlustý, Pavel Pecina and Ondřej Bojar: CUNI System for WMT16 Automatic Post-Editing and Multimodal Translation Tasks. In *Proceedings of the First Conference on Machine Translation (WMT)*

Awards

2017 **Outstanding paper**, *for paper "Attention Strategies for Multi-Source Sequence-to-Sequence Learning" on the ACL 2017 conference*, Vancouver.

Computer Skills

programming **TensorFlow, Python, Bash**, Pytorch, C/C++, Java

other Unix, Emacs, Git

Machine learning and NLP

Experience with both supervised and unsupervised learning, neural networks (using TensorFlow), processing of large data collections. Applied on neural machine translation, document clustering, language modeling.

Language Skills

English *Professional working proficiency*

German *Elementary proficiency*