Jindřich Helcl

Curriculum Vitae

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Education

2014–2022 **PhD.**, Institute of Formal and Applied Linguistics, Charles University, Prague Thesis topic: Non-Autoregressive Neural Machine Translation

2011-2014 Mgr., Computational Linguistics, Charles University, Prague

2007-2011 Bc., Computer Science, Charles University, Prague

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.

2020–2022 **Research Associate**, *University of Edinburgh*, Edinburgh Working on non-autoregressive neural machine translation and on machine translation under low-resource settings.

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

2022 Jindřich Helcl, Barry Haddow, Alexandra Birch: Non-Autoregressive Machine Translation: It's Not as Fast as it Seems. In *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*.

2022 Barry Haddow, Rachel Bawden, Antonio Valerio Miceli Barone, Jindřich Helcl, Alexandra Birch: Survey of Low-Resource Machine Translation. In *Computational Linguistics, Vol. 48, No. 3*

- 2021 Pinzen Chen, Jindřich Helcl, Ulrich Germann, Laurie Burchell, Nikolay Bogoychev, Antonio Valerio Miceli Barone, Jonas Waldendorf, Alexandra Birch, Kenneth Heafield: The University of Edinburgh's English-German and English-Hausa submissions to the WMT21 news translation task. In *Proceedings of the Sixth Conference on Machine Translation (WMT)*
- 2020 Zdeněk Kasner, Jindřich Libovický, Jindřich Helcl: Improving Fluency of Non-Autoregressive Neural Machine Translation. Published online.
- 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)
- 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 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 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

- 2022 **Steven Krauwer Award**, awarded at the CLARIN Annual Conference to the ÚFAL for Ukraine team for the Czech–Ukrainian translation tool built in response to the Russian invasion to Ukraine in 2022 and the subsequent refugee crisis in the Czech Republic, Prague
- 2017 **Outstanding paper**, for paper "Attention Strategies for Multi-Source Sequence-to-Sequence Learning" on the ACL 2017 conference, Vancouver