

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*

Work Experience

- 2017–present **Research Assistant**, *Institute of Formal and Applied Linguistics, Charles University, Prague*
Multimodal MT, non-autoregressive decoding, lexically grounded tokenization.
- 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**, *Deutsches 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.

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

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

Academic Community Service

- 2022, 2024 Main organizer of the *MT Marathon* in Prague, Czech Republic
- 2017–present Rewieving for *ARR (*CL, EMNLP)*, *COLING*, *LREC*
- 2017 Co-organizer of the *WMT17 Neural MT Training Task*
- 2017 Presented the Neural Machine Translation tutorial at *RANLP 2017* in Varna, Bulgaria

Selected Bibliography

See <https://scholar.google.cz/citations?user=YkypSXgAAAAJ> for full list

CORE A/A* ranked venues and impacted journals

- 2024 Jindřich Libovický, Jindřich Helcl: Lexically Grounded Subword Segmentation. In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP)*
- 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
- 2018 Jindřich Libovický, Jindřich Helcl: End-to-End Non-Autoregressive Neural Machine Translation with Connectionist Temporal Classification. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP)*
- 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)*

Other peer-reviewed venues

- 2023 Jindřich Helcl, Zdeněk Kasner, Ondřej Dušek, Tomasz Limisiewicz, Dominik Macháček, Tomáš Musil, Jindřich Libovický: Teaching LLMs at Charles University: Assignments and Activities. In *Proceedings of the Sixth Workshop on Teaching NLP (TeachNLP)*
- 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)*
- 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 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)*