# 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

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

2023 Nikolay Bogoychev, Jelmer van der Linde, Graeme Nail, Barry Haddow, Jaume Zaragoza-Bernabeu, Gema Ramírez-Sánchez, Lukas Weymann, Tudor Nicolae Mateiu, Jindřich Helcl, Mikko Aulamo: OpusCleaner and OpusTrainer, open source toolkits for training Machine Translation and Large language models. *arXiv preprint: 2311.14838.*

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