

Agnieszka Faleńska

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Personal Profile

I am a postdoctoral researcher in the Foundations of Computational Linguistics group at University of Stuttgart. My research interests are centered around interpretability of neural networks, parsing algorithms, and cross-lingual NLP. Currently, I am working on techniques to investigate predictive biases of NLP models.

Education

Mar 2015 – Sep 2020 PhD student at University of Stuttgart
Institute for Natural Language Processing
Parental leave: full time March 2016 – February 2017, part time (50%) February – April 2017
PhD thesis: Ensemble Dependency Parsing across Languages – Methodological Perspectives
Grade: *summa cum laude*
Award: *Preis der Freunde der Universität Stuttgart*, the prize for special scientific achievements

Mar 2014 – Jul 2015 PhD scholar at University of Wrocław
The International PhD Program in Computer Science and Applied Mathematics

2004 – 2009 Student at University of Wrocław
Mathematics and Computer Science Department
MSc thesis: Automatic Query Correction for Polish
Grade: *very good*

Employment

Oct 2020 – present University of Stuttgart, Germany
Postdoctoral Researcher
Parental leave: full time June 2021 – March 2021, part time (50%) March – April 2022

Jul 2011 – Mar 2014 Neurosoft Sp. z o.o., Wrocław, Poland
Natural Language Processing Group Team Leader

- gathering requirements and negotiating scope of projects, planning and delegation of tasks
- implementation of NLP algorithms in projects NeuroCourt and NeuroGram 3
- implementation and usage of machine learning algorithms

Nov 2008 – Neurosoft Sp. z o.o., Wrocław, Poland

Jul 2011 *Software Developer*

- implementation of NeuroScope Internet search engine
- development of software compatible with both Linux and Windows systems (aspects of multi-threading, shared memory management)
- creation of unit tests and integration tests

Apr 2008 – Neurosoft Sp. z o.o., Wrocław, Poland

Jun 2008 *Student Project: creation of a library correcting errors in queries to Internet search engines*

Publications

- Agnieszka Falenska and Özlem Çetinoğlu, **Assessing Gender Bias in Wikipedia: Inequalities in Article Titles**, [To Appear In] *Proceedings of the Third Workshop on Gender Bias in Natural Language Processing*, 2021.
- Agnieszka Falenska, Anders Björkelund, and Jonas Kuhn, **Integrating Graph-Based and Transition-Based Dependency Parsers in the Deep Contextualized Era**, *Proceedings of the 16th International Conference on Parsing Technologies*, 2020.
- Agnieszka Falenska, Zoltán Czesznak, Kerstin Jung, Moritz Völkel, Wolfgang Seeker, and Jonas Kuhn, **GRAIN-S: Manually Annotated Syntax for German Interviews**, *Proceedings of The 12th Language Resources and Evaluation Conference*, 2020
- Agnieszka Falenska and Jonas Kuhn, **The (Non-)Utility of Structural Features in BiLSTM-based Dependency Parsers**, *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics*, 2019
- Xiang Yu, Agnieszka Falenska, Marina Haid, Ngoc Thang Vu, and Jonas Kuhn, **IMSurReal: IMS at the Surface Realization Shared Task 2019**, *Proceedings of the Second Workshop on Multilingual Surface Realization*, 2019
- (Runner-up for the best paper) Xiang Yu, Agnieszka Falenska, Ngoc Thang Vu, and Jonas Kuhn, **Head-First Linearization with Tree-Structured Representation**, *Proceedings of the 12th International Conference on Natural Language Generation*, 2019
- Xiang Yu, Agnieszka Falenska, and Jonas Kuhn, **Dependency length minimization vs. word order constraints: an empirical study on 55 treebanks**, *Proceedings of the First Workshop on Quantitative Syntax*, 2019
- Agnieszka Falenska, Anders Björkelund, Xiang Yu, Jonas Kuhn, **IMS at the PolEval 2018: A Bulky Ensemble Dependency Parser meets 12 Simple Rules for Predicting Enhanced Dependencies in Polish**, *Proceedings of the PolEval 2018 Workshop*, 2018
- Agnieszka Falenska, Kerstin Eckart, and Jonas Kuhn, **Moving TIGER beyond Sentence-Level**, *Proceedings of the 11th International Conference on Language Resources and Evaluation*, 2018
- Katrin Schweitzer, Kerstin Eckart, Markus Gärtner, Agnieszka Falenska, Arndt Riester, Ina Roesiger, Antje Schweitzer, Sabrina Stehwen and Jonas Kuhn, **German Radio Interviews: The GRAIN Release of the SFB732 Silver Standard Collection**, *Proceedings of the 11th International Conference on Language Resources and Evaluation*, 2018
- Agnieszka Falenska and Özlem Çetinoğlu, **Lexicalized vs. Delexicalized Parsing in Low-Resource Scenarios**, *Proceedings of the 15th International Conference on Parsing Technologies*, 2017
- Xiang Yu, Agnieszka Falenska, and Ngoc Thang Vu, **A General-Purpose Tagger with Convolutional Neural Networks**, *Proceedings of the 1st Workshop on Subword and Character Level Models in NLP*, 2017

- Anders Björkelund, Agnieszka Faleńska, Xiang Yu, Jonas Kuhn, **IMS at the CoNLL 2017 UD Shared Task: CRFs and Perceptrons Meet Neural Networks**, *Proceedings of the CoNLL 2017 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies*, 2017
- Anders Björkelund, Agnieszka Faleńska, Wolfgang Seeker, and Jonas Kuhn, **How to Train Dependency Parsers with Inexact Search for Joint Sentence Boundary Detection and Parsing of Entire Documents**, *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics*, 2016
- Agnieszka Faleńska, Anders Björkelund, Özlem Çetinoğlu, and Wolfgang Seeker. **Stacking or Supertagging for Dependency Parsing – What’s the difference?**, *Proceedings of the 14th International Conference on Parsing Technologies*, 2015
- Anders Björkelund, Özlem Çetinoğlu, Agnieszka Faleńska, Richárd Farkas, Thomas Müller, Wolfgang Seeker, and Zsolt Szántó, **The IMS-Wrocław-Szeged-CIS Entry at the SPMRL 2014 Shared Task: Reranking and Morphosyntax Meet Unlabeled Data**, *Fifth Workshop on Statistical Parsing of Morphologically-Rich Languages*, 2014

Teaching

- **Interpretability and Analysis of NLP Models**
Lecturers: Agnieszka Faleńska
University of Stuttgart, *Summer 2021*
- **Statistical Dependency Parsing**
Lecturers: Agnieszka Faleńska and Xiang Yu
University of Stuttgart, *Summer 2017, Summer 2018, Winter 2019/20, Winter 2020/21*
- **Programming for Computational Linguistics**
Lecturers: Agnieszka Faleńska and Sean Papay
University of Stuttgart, *Winter 2018/19, Winter 2019/20, Winter 2020/21*
- **Parsing**
Lecturers: Jonas Kuhn, Agnieszka Faleńska, and Xiang Yu
University of Stuttgart, *Summer 2019*
- **Introduction to Programming in Python**, Teaching Assistant
Lecturer: Paweł Rychlikowski
University of Wrocław, *Winter 2013/14, Winter 2014/15*
- **Object-oriented Design of Software**, Teaching Assistant
Lecturer: Wiktor Zychła
University of Wrocław, *Summer 2014*
- **Databases**, Teaching Assistant
Lecturer: Przemysława Kanarek
University of Wrocław, *Summer 2014*

Research Community Activities

- 2016–2021** Reviewer in top NLP conferences:
LREC 2016–2020, NAACL 2019, EMNLP 2020, EACL 2021
- Sep 2014** Local organizer of ALGO 2014 conference held at University of Wrocław
- Jul 2007** Staff member at the ICALP, LICS, PPDP & LC joint conferences held at University of Wrocław
- 2005–2009** Member of Computer Science Scientific Circle at the Mathematics and Computer Science Department, University of Wrocław
Deputy president 2007–2008