



Johannes Gontrum

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Curriculum Vitae

Education

- 2015– **M.Sc., Cognitive Systems**, University of Potsdam.
- 2011–2015 **B.Sc., Computerlinguistik**, University of Potsdam.
Thesis: State-splitting for Interpreted Regular Tree Automata.
Grade: 1.5.

Professional Experience

- Summer 2015 **Internship as a Software Developer**,
Acrolinx GmbH, Berlin.
Improved the performance of a compound parser and developed a software that visualizes the parsing process and its results. It helps linguists to improve and maintain the grammars for various languages.
- 2013–2016 **Student Research Assistant**,
Theoretical Computational Linguistics, Prof. Dr. Alexander Koller,
University of Potsdam.
Implemented, optimized and evaluated efficient statistical parsing algorithms in Java. I increased the efficiency of the intersection algorithm of tree automata by a factor of 260x.
- 2012–2013 **Student Assistant**,
Administrative Sciences, Prof. Dr. Werner Jann,
University of Potsdam.
Independently managed computer systems, advised employees in technical questions and administrated the Windows 2008 server with Active Directory.

Teaching Experience

- Winter 2014/2015 **Teaching Assistant: C++ in Computational Linguistics I**,
Linguistics Department, University of Potsdam.
Instructor: Dr. Thomas Hanneforth.
The syllabus included the foundations of computer architecture, object-oriented programming, pointers and makefiles.
- Summer 2014 **Teaching Assistant: Techniques in Computational Linguistics**,
Linguistics Department, University of Potsdam.
Instructor: Dr. Thomas Hanneforth.
The syllabus included different parsing algorithms, probability models, hidden Markov models, the expectation–maximization algorithm and language models.
- Winter 2013/2014 **Teaching Assistant: Self-reflection and Planning**,
Linguistics Department, University of Potsdam.
Held a seminar that introduced beginning students to the university and taught the principles of time and career management, as well as learning techniques and effective self-evaluation.

Summer 2013 **Teaching Assistant: Formal Languages and Automata,**
Linguistics Department, University of Potsdam.
Instructor: Dr. Thomas Hanneforth.
The syllabus included the Chomsky hierarchy, regular and context-free grammars, finite-state and pushdown automata, complexity theory and parsing algorithms.

Awards

- 2015 **Winner of the international hackathon codeFEST8 by Volkswagen.**
Developed a software that identifies the mood of a car's driver by analysing his or her voice. This information can be used to prevent dangerous reactions of the driver. By winning against ten other teams in Berlin, we qualified for the finals at CeBit, where I presented our idea in front of a live audience. We claimed the third place.

Publications

- 2015 Gontrum, J.; Scheffler, T.: Text-based Geolocation of German Tweets. 2nd Workshop on Natural Language Processing for Computer-Mediated Communication, 2015.
<https://sites.google.com/site/nlp4cmc2015/NLP4CMC-2015.pdf>
- 2014 Scheffler, T.; Gontrum, J.; Wegel, M., and Wendler, S.: Mapping German Tweets to Geographic Regions. In Proceedings of the 12th KONVENS, 2014.
<http://opus.bsz-bw.de/ubhi/volltexte/2014/323>

Attended Conferences

- 2015 2nd Workshop on Natural Language Processing for Computer-Mediated Communication (NLP 4 CMC 2015).
- 2013 15th International Conference of the German Society for Computational Linguistics and Language Technology (GSCL 2013).

Academic Services

- 2011–2013 **Student Representative,**
Linguistics Department, University of Potsdam
Responsible for finances from 2012 to 2013.

Skills

- Languages German (native), English (fluent).
- Programming *Advanced:* Java, Python, C++. *Intermediate:* JavaScript, MongoDB.
- Development Git, Mercurial, Maven, Make.
- Design LaTeX, HTML/CSS, Adobe InDesign, Adobe Photoshop.

References

Prof. Dr. Alexander Koller

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Department of Linguistics, University of Potsdam.

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Prof. Dr. Manfred Stede

Professor of Applied Computational Linguistics
Department of Linguistics, University of Potsdam.

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Dr. Thomas Hanneforth

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