

# MELANIE TOSIK

Austin, TX

`melanie.tosik@gmail.com`

`melanietosik.com`

## EDUCATION

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**University of Potsdam**, Potsdam, Germany 10/2011 - 09/2015

B.S., Computational Linguistics (GPA: 3.6)

Thesis: “String to Semantic Graph Alignment”

**University of Ulster**, Northern Ireland, United Kingdom 01/2014 – 05/2014

European Union Erasmus Mundus scholarship (Study Abroad)

## PROFESSIONAL EXPERIENCE

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**Research Engineer – Natural Language Processing** since 10/2015

CognitiveScale

Austin, Texas

Designed and implemented a proprietary question answering system based on state-of-the-art techniques for natural language understanding and ontology extraction

**Research Intern** 06/2014 – 08/2014

Textkernel

Amsterdam, The Netherlands

Improved resume parsing for multilingual documents by integrating word embeddings as input features for a probabilistic sequence labeling model based on conditional random fields

**Undergraduate Research Assistant** 07/2013 – 04/2014

Applied Computational Linguistics Discourse Research Lab

University of Potsdam

Co-developed a Python tool for automatic coreference resolution within project D1 (Linguistic Database for Information Structure: Annotation and Retrieval) of DFG funded Collaborative Research Center 632

**Student Assistant** 04/2012 – 06/2013

Department of Linguistics, University of Potsdam

System administration of department computer lab

## PUBLICATIONS

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**Melanie Tosik**, Carsten L. Hansen, Gerard Goossen, and Mihai Rotaru. “Word Embeddings vs Word Types for Sequence Labeling – the Curious Case of CV Parsing.” In *Workshop on Vector Space Modeling for NLP, NAACL 2015*, Denver.

## TEACHING EXPERIENCE

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### Teaching Assistant

Winter 2014

“Computerlinguistische Techniken” (Techniques in Computational Linguistics)

Instructor: Prof. Dr. Alexander Koller

Department of Linguistics, University of Potsdam

Syllabus includes different parsing algorithms for context-free grammars; fundamental statistical methods such as N-gram language models, Hidden Markov models, and probabilistic context-free grammars

### Teaching Assistant

Summer 2013

“Selbstreflexion und Planung” (Self-reflection and Planning)

Department of Linguistics, University of Potsdam

Designed and held a seminar intended to enhance first-year university experiences by imparting the basics of academic organizational structure and learning strategies (examined)

## POSTER AND PRESENTATIONS

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**Melanie Tosik.** “Generating personalized travel recommendations from natural language queries.” *Data Day Seattle*, Seattle, 2016.

Carsten L. Hansen, **Melanie Tosik**, Gerard Goossen, Chao Li, Lena Bayeva, Florence Berbain, and Mihai Rotaru. “How to Get the Best Word Vectors for Resume Parsing.” In *SNN Adaptive Intelligence / Symposium: Machine Learning 2015*, Nijmegen, 2015.

**Melanie Tosik.** “Sequence Labelling using Distributional Semantic Vectors and Conditional Random Fields.” *Textkernel Tech Talks*, Amsterdam, 2014.

## COMMITTEE WORK

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### Examination Board (Prüfungsausschuss)

since 10/2012

Department of Linguistics, University of Potsdam

Student member

### Chair Member of Joint Student Council (Versammlung der Fachschaften)

10/2012 – 10/2013

University of Potsdam

Presided monthly meetings of a university-wide student council in charge of coordinating collaborative efforts and disposing financial resources (up to 35.000 euros per year)

### Student Representative (Mitglied im Fachschaftsrat)

11/2011 – 06/2013

Department of Linguistics, University of Potsdam

## LANGUAGES

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### German

Native

**English**

Fluent (TOEFL iBT score: **119** of 120)

**French**

Working knowledge

**SKILLS AND INTERESTS**

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Proficient in Python, C++, Java, R, Git, Make, and related technologies.

Experienced with common NLP/ML toolkits and frameworks (e.g. spaCy, CoreNLP, SciPy, NumPy, TensorFlow, IBM Bluemix).

Familiar with ML algorithms for clustering, classification, sequence labeling, and deep learning.

Versed in knowledge base construction and entity linking using RDF, SPARQL, and DBpedia.

Attended ACL 2016, NAACL 2015, COLING 2014, and EACL 2014 through external funding.

Interested in linguistic variation and new technologies.

**REFERENCES**

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**Prof. Dr. Alexander Koller**

Professor of Computational Linguistics

Department of Language Science and Technology

Saarland University

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**Prof. Dr. Manfred Stede**

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