

# NIKO SCHENK

Researcher in Natural Language Processing

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## EXPERIENCE

PhD Candidate & Researcher



Applied Computational Linguistics Lab / Goethe University Frankfurt  
Department of Computer Science & English and American Studies

📅 April 2013 - Ongoing

📍 Frankfurt, Germany

- Thesis on Implicit Discourse Parsing & Semantic Role Labeling
- **State-of-the-art Chinese implicit discourse parser**
- Involved in academic organization, grant applications, teaching (corpus linguistics & NLP), advising of students (BA/MA theses).

Software Development Intern



SONY Deutschland GmbH, Stgt Tech Center, Speech & Sound Group

📅 October 2010 - March 2011

📍 Stuttgart, Germany

- Development of a web crawler for online reviews + implementation of a multi-language sentiment analysis program.
- **Successful patent grant**

Software Development Intern



IBM Deutschland GmbH, Text Analysis, Information Management

📅 August 2009 - January 2010

📍 Böblingen, Germany

- Development of a linguistic component for the automated analysis of user-generated content + **integration into IBM product.**

## OPEN SOURCE CONTRIBUTIONS

Self-Developed Design & Implementation of "Beta Writer"  
The First Entirely Machine-Generated Research Book

📅 April 2019

- <https://link.springer.com/book/10.1007/978-3-030-16800-1>

Google Summer of Code Mentor 2018

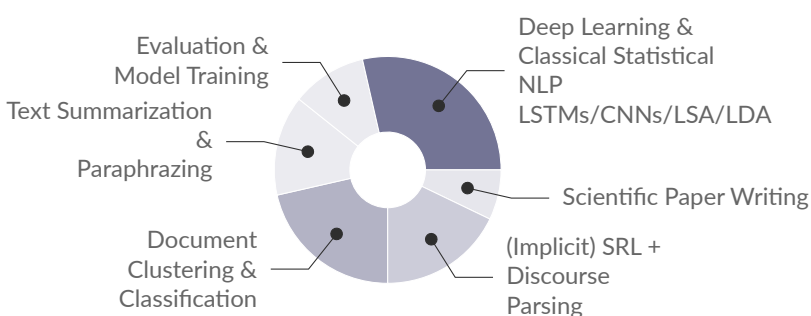
Machine Translation & Automated Analysis of Cuneiform Languages

📅 Summer 2018

📍 Frankfurt/Toronto/Mumbai

- Mentored **Bakhtiyar Syed** who implemented the first SRL parser for Sumerian: <https://summerofcode.with-google.com/archive/2018/projects/6336913732534272/>

## NLP RESEARCH INTERESTS



## PROGRAMMING LANGUAGES & FRAMEWORKS

Java Python R Ruby

Theano Theanets Keras

Deeplearning4J

ZK JAX-RS Google Web Toolkit

## REVIEW ACTIVITY

🎓 Part of Program Committees  
SIGDIAL 2017, '18, EMNLP 2018,  
LREC2018, ACL2018, '19, ...

## PROGRAMMING LANGUAGES

Java ●●●●●

Python ●●●●●

R ●●●●●

## EDUCATION

PhD Candidate in NLP

Goethe University Frankfurt, Germany

📅 December 2014 - Ongoing

Development of automated methods for retrieving implicit information from text.

M.A. in Computational Linguistics

University of Tübingen, Germany

📅 April 2011 - March 2013

Thesis: *A Suffix-Array Based Algorithm for the Extraction of Enhanced N-Grams*  
Final grade: 1.0 (A)

B.A. in Computational Linguistics

University of Tübingen, Germany

📅 October 2007 - October 2010

Thesis: *A Finite-State Approach to Sentiment Analysis*, Final grade: 1.3 (A-)

# PUBLICATIONS

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## Journal Article

- Chiarcos, Christian et al. (2018a). "Annotating a Low-Resource Language with LLOD Technology: Sumerian Morphology and Syntax". In: *Information* 9.11, p. 290. DOI: 10.3390/info9110290. URL: <https://doi.org/10.3390/info9110290>.

## Conference Proceedings

- Chiarcos, Christian and Niko Schenk (2018). "The ACoLi CoNLL Libraries: Beyond Tab-Separated Values". In: *Proceedings of the Eleventh International Conference on Language Resources and Evaluation, LREC 2018, Miyazaki, Japan, May 7-12, 2018*. URL: <http://aclweb.org/anthology/L18-1090>.
- Chiarcos, Christian et al. (2018b). "Towards a Linked Open Data Edition of Sumerian Corpora". In: *Proceedings of the Eleventh International Conference on Language Resources and Evaluation, LREC 2018, Miyazaki, Japan, May 7-12, 2018*. URL: <http://www.lrec-conf.org/proceedings/lrec2018/pdf/862.pdf>.
- Hoenen, Armin and Niko Schenk (2018). "Knowing the Author by the Company His Words Keep". In: *Proceedings of the Eleventh International Conference on Language Resources and Evaluation, LREC 2018, Miyazaki, Japan, May 7-12, 2018*. URL: <http://aclweb.org/anthology/L18-1083>.
- Schenk, Niko and Christian Chiarcos (2017). "Resource-Lean Modeling of Coherence in Commonsense Stories". In: *Proceedings of the 2nd Workshop on Linking Models of Lexical, Sentential and Discourse-level Semantics*. Valencia, Spain: Association for Computational Linguistics, pp. 68–73. URL: <http://aclweb.org/anthology/W17-0910>.
- Schenk, Niko, Samuel Rönnqvist, and Christian Chiarcos (2017). "A Recurrent Neural Model with Attention for the Recognition of Chinese Implicit Discourse Relations". In: **Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers, 18% acceptance rate)**. Vancouver, Canada: Association for Computational Linguistics, pp. 256–262. DOI: 10.18653/v1/P17-2040. URL: <http://www.aclweb.org/anthology/P17-2040>.
- Schenk, Niko and Christian Chiarcos (2016). "Unsupervised Learning of Prototypical Fillers for Implicit Semantic Role Labeling". In: **NAACL HLT 2016, The 2016 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, San Diego California, USA, June 12-17, 2016, 25% acceptance rate**, pp. 1473–1479. URL: <http://aclweb.org/anthology/N/N16/N16-1173.pdf>.
- Schenk, Niko et al. (2016). "Do We Really Need All Those Rich Linguistic Features? A Neural Network-Based Approach to Implicit Sense Labeling". In: *Proceedings of the CoNLL-16 shared task*. Berlin, Germany: Association for Computational Linguistics, pp. 41–49. DOI: 10.18653/v1/K16-2005. URL: <http://aclweb.org/anthology/K16-2005>.
- Chiarcos, Christian and Niko Schenk (2015a). "A Minimalist Approach to Shallow Discourse Parsing and Implicit Relation Recognition". In: *Proceedings of the 19th Conference on Computational Natural Language Learning: Shared Task, CoNLL 2015, Beijing, China, July 30-31, 2015*, pp. 42–49. URL: <http://aclweb.org/anthology/K/K15/K15-2006.pdf>.
- – (2015b). "Memory-Based Acquisition of Argument Structures and its Application to Implicit Role Detection". In: *Proceedings of the SIGDIAL 2015 Conference, The 16th Annual Meeting of the Special Interest Group on Discourse and Dialogue, 2-4 September 2015, Prague, Czech Republic*, pp. 178–187. URL: <http://aclweb.org/anthology/W/W15/W15-4626.pdf>.
- Eger, Steffen, Niko Schenk, and Alexander Mehler (2015). "Towards Semantic Language Classification: Inducing and Clustering Semantic Association Networks from Europarl". In: *Proceedings of the Fourth Joint Conference on Lexical and Computational Semantics, \*SEM 2015, June 4-5, 2015, Denver, Colorado, USA.*, pp. 127–136. URL: <http://aclweb.org/anthology/S/S15/S15-1014.pdf>.
- Schenk, Niko, Christian Chiarcos, and Maria Sukhareva (2015). "Towards the Unsupervised Acquisition of Implicit Semantic Roles". In: *Proceedings of the International Conference Recent Advances in Natural Language Processing*. Hissar, Bulgaria: INCOMA Ltd. Shoumen, BULGARIA, pp. 570–578. URL: <http://aclanthology.coli.uni-saarland.de/pdf/R/R15/R15-1074.pdf>.

## Patent

- Eggink, Jana et al. (Apr. 2014). *Method for determining a sentiment from a text*. US Patent App. 14/111,101. URL: <https://patents.google.com/patent/US20140114648A1/en>.

## Machine-Generated Book (Algorithm Design & Implementation)

- Writer, Beta (2019). "Anode Materials, SEI, Carbon, Graphite, Conductivity, Graphene, Reversible, Formation". In: *Lithium-Ion Batteries: A Machine-Generated Summary of Current Research*. Cham: Springer International Publishing, pp. 1–71. ISBN: 978-3-030-16800-1. URL: <https://link.springer.com/book/10.1007/978-3-030-16800-1>.