

Curriculum Vitae

Personal information

Name Katharina Lisa Maria Kann
Date of birth 22 November 1990
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Education and research experience

from 01/2020 **Assistant Professor of Computer Science:** University of Colorado Boulder, USA
04/2018 - 12/2019 **Postdoctoral Research Associate:** New York University, USA
01/2015 - 09/2017 **PhD in Computer Science:** University of Munich, Germany
10/2012 - 11/2014 **MSc in Computer Science:** Technical University of Munich, Germany (GPA: 1.5)
10/2008 - 11/2011 **BSc in Mathematics** with minor Computer Science: Johannes Gutenberg University Mainz, Germany (GPA: 1.8)
08/2000 - 03/2008 High school: Maria Ward-Gymnasium, Mainz, Germany
(**University-entrance diploma** - Abitur; GPA: 1.0; best grade in my year)

Industry and project experience

10/2017 - 03/2018 **Internship at Google Zurich:** Research and software engineering
09/2016 - 12/2016 **Internship at Google Zurich:** Research and software engineering
06/2015 - 09/2015 **Internship at Google London:** Research and software engineering
04/2014 - 11/2014 **Master's thesis** about the topic "Improving Human-Robot Interaction by Applying Incremental Processing of Speech and Non-verbal Signals"
04/2014 - 09/2014 **Student researcher** at fortiss (data collection and gesture recognition with Hidden Markov Models using C#)
12/2013 - 04/2014 **Student researcher** at DLR (design and development of an application to train amputees for the use of hand prosthesis using C#)
10/2013 - 04/2014 **Guided research** about the topic "Gesture Recognition in Robotics"

Stays abroad

09/2011 - 07/2012 **Mandarin language studies** at the Donghua University in Shanghai, China

- 09/2009 - 07/2010 **ERASMUS** year in Valencia, Spain (university studies at the Universitat de Valencia; language studies at the language school Centre d'idiomes)
- 04/2008 - 07/2008 **Mandarin language studies** at the EF language school in Beijing, China

Awards

- 06/2017 Winning system of task 2 of the **CoNLL-SIGMORPHON 2017 shared task on universal morphological reinflection**
- 05/2017 **Google scholarship** for attending the Lisbon Machine Learning School (LxMLS 2017)
- 05/2016 Winning system of the **SIGMORPHON 2016 shared task on morphological reinflection**
- 07/2011 **Scholarship** from the German Academic Exchange Service and the China Scholarship Council for Mandarin language studies in China
- 09/2009 **ERASMUS scholarship** for university studies in Valencia
- 03/2009 **Scholarship** from the "Studienstiftung des Deutschen Volkes"

Teaching

- Classes Natural Language Understanding and Computational Semantics (DS-GA 1012/LING-GA 1012, with Samuel R. Bowman). NYU, spring 2019.
- *Resulting in a publication at the ACL Student Research Workshop 2019*
- Mentoring and supervision Supervision of undergraduate intern Huiming Jin. LMU Munich, 2017.
- *Resulting in a publication at SCLeM 2017*

Skills

- Languages **German** (mother tongue), **English** (fluent), **Spanish** (fluent), **Chinese** (intermediate, HSK 5 in 2012), **French** (basic), **Latin** (Latinum)
- Programming languages **Java** (good knowledge), **Python** (good knowledge), **C++** (basic knowledge), **C#** (basic knowledge)

Professional service

- 2018 - 2019 Co-organizer of the workshop **Repl4NLP**
- 2018 Co-organizer of the **CoNLL--SIGMORPHON 2018 shared task on universal morphological reinflection**

Publications

Refereed conference papers

Katharina Kann. **Acquisition of Inflectional Morphology in Artificial Neural Networks With Prior Knowledge**. In SCiL 2020 (*to appear*).

Katharina Kann, Kyunghyun Cho and Samuel R. Bowman. **Towards Realistic Practices In Low-Resource Natural Language Processing: The Development Set**. In EMNLP 2019 (short papers) (*to appear*).

Yadollah Yaghoobzadeh, Katharina Kann, T. J. Hazen, Eneko Agirre and Hinrich Schütze. **Probing for Semantic Classes: Diagnosing the Meaning Content of Word Embeddings**. In ACL 2019.

Manuel Mager, Özlem Çetinoğlu and Katharina Kann. **Subword-Level Language Identification for Intra-Word Code-Switching**. In NAACL 2019.

Katharina Kann*, Alex Warstadt*, Adina Williams* and Samuel R. Bowman. **Verb Argument Structure Alternations in Word and Sentence Embeddings**. In SCiL 2019.

Katharina Kann and Hinrich Schütze. **Neural Transductive Learning and Beyond: Morphological Generation in the Minimal-Resource Setting**. In EMNLP 2018.

Katharina Kann, Sascha Rothe and Katja Filippova. **Sentence-Level Fluency Evaluation: References Help, But Can Be Spared!** In CoNLL 2018.

Katharina Kann*, Jesus Manuel Mager Hois*, Ivan Vladimir Meza Ruiz and Hinrich Schütze. **Fortification of Neural Morphological Segmentation Models for Polysynthetic Minimal-Resource Languages**. In NAACL 2018.

Katharina Kann, Ryan Cotterell and Hinrich Schütze. **One-Shot Neural Cross-Lingual Transfer for Paradigm Completion**. In ACL 2017.

Katharina Kann, Ryan Cotterell and Hinrich Schütze. **Neural Multi-Source Morphological Reinflection**. In EACL 2017.

Katharina Kann, Ryan Cotterell, Hinrich Schütze. **Neural Morphological Analysis: Encoding Decoding Canonical Segments**. In EMNLP 2016 (short papers).

Katharina Kann and Hinrich Schütze. **Single-Model Encoder-Decoder with Explicit Morphological Representation for Reinflection**. In ACL 2016 (short papers).

Workshop papers

Johannes Bjerva, Katharina Kann and Isabelle Augenstein. **Transductive Auxiliary Task Self-Training for Neural Multi-Task Models**. In DeepLo 2019 (*to appear*).

Katharina Kann, Anhad Mohananey, Kyunghyun Cho and Samuel R. Bowman. **Neural Unsupervised Parsing Beyond English**. In DeepLo 2019 (*to appear*).

Katharina Kann, Stanislas Lauly and Kyunghyun Cho. **The NYU System for the CoNLL–SIGMORPHON 2018 Shared Task on Universal Morphological Reinflection**. In CoNLL–SIGMORPHON 2018.

Manuel Mager, Elisabeth Mager, Alfonso Medina-Urrea, Ivan Meza and Katharina Kann. **Lost in Translation: Analysis of Information Loss During**

Machine Translation Between Polysynthetic and Fusional Languages. In All Together Now? Computational Modeling of Polysynthetic Languages 2018.

Katharina Kann, Johannes Bjerva, Isabelle Augenstein, Barbara Plank and Anders Søgaard. **Character-level Supervision for Low-resource POS Tagging.** In DeepLo 2018.

Yadollah Yaghoobzadeh, Katharina Kann and Hinrich Schütze. **Evaluating Word Embeddings in Multi-label Classification Using Fine-grained Name Typing.** In Repl4NLP 2018.

Katharina Kann and Hinrich Schütze. **Unlabeled Data for Morphological Generation With Character-Based Sequence-to-Sequence Models.** In SCLeM 2017.

Huiming Jin and Katharina Kann. **Exploring Cross-Lingual Transfer of Morphological Knowledge In Sequence-to-Sequence Models.** In SCLeM 2017.

Katharina Kann and Hinrich Schütze. **The LMU System for the CoNLL-SIGMORPHON 2017 Shared Task on Universal Morphological Reinflection.** In CoNLL–SIGMORPHON 2017.

Toms Bergmanis, Katharina Kann, Hinrich Schütze and Sharon Goldwater. **Training Data Augmentation for Low-Resource Morphological Inflection.** In CoNLL–SIGMORPHON 2017.

Katharina Kann and Hinrich Schütze. **MED: The LMU system for the SIGMORPHON 2016 shared task on morphological reinflection.** In SIGMORPHON 2016.

Invited
publications

Ryan Cotterell, Christo Kirov, John Sylak-Glassman, Géraldine Walther, Ekaterina Vylomova, Arya D. McCarthy, Katharina Kann, Sebastian Mielke, Garrett Nicolai, Miikka Silfverberg, David Yarowsky, Jason Eisner and Mans Hulden. Søgaard. **The CoNLL--SIGMORPHON 2018 Shared Task: Universal Morphological Reinflection.** In CoNLL 2018.

Unpublished
manuscripts

Katharina Kann. **Grammatical Gender, Neo-Whorfianism, and Word Embeddings: A Data-Driven Approach to Linguistic Relativity.** arXiv:1910.09729.

Wenpeng Yin, Katharina Kann, Mo Yu and Hinrich Schütze. **Comparative Study of CNN and RNN for Natural Language Processing.** arXiv:1702.01923.

Talks

Conference talks

11/2018

Neural Transductive Learning and Beyond: Morphological Generation in the Minimal-Resource Setting

Location: Brussels

Event: EMNLP

11/2018

Sentence-Level Fluency Evaluation: References Help, But Can Be Spared!

Location: Brussels

Event: CoNLL

06/2018 **Fortification of Neural Morphological Segmentation Models for Polysynthetic Minimal-Resource Languages**
Location: New Orleans
Event: NAACL

08/2016 **Single-Model Encoder-Decoder with Explicit Morphological Representation for Reinflection**
Location: Berlin
Event: ACL

Workshop talks

07/2018 **Character-level Supervision for Low-resource POS Tagging**
Location: Melbourne
Event: DeepLo

Invited talks

10/2019 **Morphological Generation in the Limited-Resource Setting**
Location: University of Pennsylvania
Host: Sihao Chen

10/2019 **Transfer Learning for Low-Resource Natural Language Processing**
Location: CIMAT, Guanajuato
Event: PLAGAA
Host: Adrian Pastor López Monroy

07/2019 **Morphological Generation in the Limited-Resource Setting**
Location: Universität Stuttgart
Host: Jonas Kuhn

03/2019 **Morphological Generation in the Limited-Resource Setting**
Location: IBM Zurich
Host: Jasmina Bogojeska

03/2019 **Morphological Generation in the Limited-Resource Setting**
Location: Google Zurich
Host: Aliaksei Severyn

02/2019 **Morphological Generation in the Limited-Resource Setting**
Location: University of Colorado
Host: Martha Palmer

02/2019 **Morphological Generation in the Limited-Resource Setting**
Location: Carnegie Mellon University
Host: Yulia Tsvetkov

07/2018 **Low-resource Morphological Generation with Sequence-to-Sequence Models**
Location: University of Melbourne
Host: Daniel Beck

10/2017 **Low-resource Morphological Generation with Sequence-to-Sequence Models**
Location: New York University
Hosts: Sam Bowman and Kyunghyun Cho

10/2017 **Low-resource Morphological Generation with Sequence-to-Sequence Models**
Location: Johns Hopkins University
Host: David Yarowsky

09/2017 **Neural Sequence-to-Sequence Models for Low-Resource Morphology**
Location: University of Copenhagen
Host: Anders Søgaard

**Invited lightning
talks**

10/2019 **Low-Resource Languages: A Challenge for Natural Language Processing**
Location: University of Michigan
Event: Michigan AI Symposium
Host: Jenna Wiens