

Curriculum Vitae

Personal information

Name Katharina Lisa Maria Kann
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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 inflection
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 inflection
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 Processing (CSCI 5832/LING 5832). CU Boulder, Spring 2020. Natural Language Understanding and Computational Semantics (DS-GA 1012/LING-GA 1012, with Samuel R. Bowman). NYU, Spring 2019. <ul style="list-style-type: none">• <i>Resulting in a publication at the ACL Student Research Workshop 2019</i>
Mentoring and supervision	Supervision of undergraduate intern Huiming Jin. LMU Munich, 2017. <ul style="list-style-type: none">• <i>Resulting in a publication at SCLeM 2017</i>

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

2020	Co-organizer of the SIGMORPHON 2020 shared task
2018 - 2019	Co-organizer of the workshop Repl4NLP
2018	Co-organizer of the CoNLL--SIGMORPHON 2018 shared task on universal morphological inflection

Publications

Refereed
conference
papers

Katharina Kann, Samuel R. Bowman and Kyunghyun Cho. **Learning to Learn Morphological Inflection for Resource-Poor Languages**. In AAAI 2020 (*to appear*).

Katharina Kann*, Ophélie Lacroix* and Anders Søgaard. **Weakly Supervised POS Taggers Perform Poorly on Truly Low-Resource Languages**. In AAAI 2020 (*to appear*).

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

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).

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.

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

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

- 01/2020 **Acquisition of Inflectional Morphology in Artificial Neural Networks With Prior Knowledge**
Location: New Orleans
Event: SCiL
- 11/2019 **Towards Realistic Practices In Low-Resource Natural Language Processing: The Development Set**
Location: Hong Kong
Event: EMNLP
- 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