

## Curriculum Vitae

### Personal information

Name Katharina Lisa Maria Kann  
Phone/e-mail +16466830278; katharina.kann@colorado.edu

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

## Teaching

|                           |   |
|---------------------------|---|
| Classes                   | Natural Language Processing (CSCI 5832/LING 5832). CU Boulder, Spring 2020.<br><br>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"><li>• <i>Resulting in a publication at the ACL Student Research Workshop 2019</i></li></ul> |
| Mentoring and supervision | Supervision of undergraduate intern Huiming Jin. LMU Munich, 2017. <ul style="list-style-type: none"><li>• <i>Resulting in a publication at SCLeM 2017</i></li></ul>  |

## Skills

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

## Professional service

|             |   |
|-------------|---|
| 2020        | Co-organizer of the <b>SIGMORPHON 2020 shared task on unsupervised discovery of morphological paradigms</b> |
| 2018 - 2019 | Co-organizer of the workshop <b>Repl4NLP</b>  |
| 2018        | Co-organizer of the <b>CoNLL--SIGMORPHON 2018 shared task on universal morphological reinflection</b>       |

## Publications

Refereed  
conference  
papers

Yada Pruksachatkun\*, Jason Phang\*, Haokun Liu\*, Phu Mon Htut\*, Xiaoyi Zhang, Richard Yuanzhe Pang, Clara Vania, Katharina Kann and Samuel R. Bowman. **Intermediate-Task Transfer Learning with Pretrained Language Models: When and Why Does It Work?** In ACL 2020 (*to appear*).

Huiming Jin, Liwei Cai, Yihui Peng, Chen Xia, Arya McCarthy and Katharina Kann. **Unsupervised Morphological Paradigm Completion.** In ACL 2020 (*to appear*).

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

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

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

- 02/2020      **Learning to Learn Morphological Inflection for Resource-Poor Languages**  
Location: New York  
Event: AAAI
- 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