Sebastian Ruder

ruder.io • sebastian@ruder.io

DeepMind c/o Google, 6 St Pancras Square, Kings Cross, N2C 4AG • London, UK

Education

- **National University of Ireland** — **Galway, Ireland**
  College of Engineering and Informatics, Ph.D. Natural Language Processing — *10/2015 – 02/2019*
- **University of Copenhagen** — **Copenhagen, Denmark**
  Research visit, Natural Language Processing Group, Computer Science Department — *04/2017 – 06/2017*
- **Trinity College** — **Dublin, Ireland**
  Semester abroad, School of Computer Science and Statistics, Computer Science and Language — *09/2014 – 01/2015*
- **Ruprecht-Karls-Universität Heidelberg** — **Heidelberg, Germany**
  Institute of Computational Linguistics, B.A. Computational Linguistics, English Linguistics — *10/2012 – 09/2015*

Experience

- **DeepMind** — **London, United Kingdom**
  Research Scientist — *03/2019 – Present*
- **AYLIEN** — **Dublin, Ireland**
  Research Scientist — *10/2015 – 02/2019*
- **IBM** — **Munich, Germany**
  Extreme Blue Intern, Watson — *08/2015 – 09/2015*
- **Microsoft** — **Dublin, Ireland**
  Linguistic Engineering Intern, XBox — *02/2015 – 06/2015*
- **The OpenCog Foundation** — opencog.org
  Google Summer of Code Intern — *Summer 2014*
- **Lingenio GmbH** — **Heidelberg, Germany**
  Software Engineering Intern — *Spring 2014*
- **SAP** — **Walldorf, Germany**
  Working Student, Development University — *02/2013 – 02/2014*
- **TEMIS** — **Heidelberg, Germany**
  Freelancing Developer — *02/2013 – 10/2013*

PhD thesis

1. **Sebastian Ruder** (2019). Neural Transfer Learning for Natural Language Processing. *National University of Ireland, Galway*.

Refereed conference publications

2. **Sebastian Ruder**, Joachim Bingel, Isabelle Augenstein, Anders Søgaard (2019). Latent Multi-task Architecture Learning. In *Proceedings of AAAI 2019*, Honolulu, Hawaii.

3. Victor Sanh, Thomas Wolf, **Sebastian Ruder** (2019). A Hierarchical Multi-task Approach for Learning Embeddings from Semantic Tasks. In *Proceedings of AAAI 2019*, Honolulu, Hawaii.

4. **Sebastian Ruder***, Ryan Cotterell*, Yova Kementchedjhieva, Anders Søgaard (2019). A Discriminative Latent-Variable Model for Bilingual Lexicon Induction. In *Proceedings of EMNLP 2018*, Brussels, Belgium.

5. Yova Kementchedjhieva, **Sebastian Ruder**, Ryan Cotterell, Anders Søgaard (2018). Generalizing Procrustes Analysis for Better Bilingual Dictionary Induction. In *Proceedings of CoNLL 2018*, Brussels, Belgium.

6. **Sebastian Ruder**, Barbara Plank (2018). Strong Baselines for Neural Semi-supervised Learning under Domain Shift. In *Proceedings of ACL 2018*, Melbourne, Australia.

7. Jeremy Howard*, **Sebastian Ruder*** (2018). Universal Language Model Fine-tuning for Text Classification. In *Proceedings of ACL 2018*, Melbourne, Australia.

8. Anders Søgaard, **Sebastian Ruder**, Ivan Vulić (2018). On the Limitations of Unsupervised Bilingual Dictionary Induction. In *Proceedings of ACL 2018*, Melbourne, Australia.

9. **Sebastian Ruder**, John Glover, Afshin Mehrabani, Parsa Ghaffari (2018). 360° Stance Detection. In *Proceedings of NAACL-HLT 2018: System Demonstrations*, New Orleans, US.

10. Isabelle Augenstein*, **Sebastian Ruder***, Anders Søgaard (2018). Multi-task Learning of Pairwise Sequence Classification Tasks Over Disparate Label Spaces. In *Proceedings of NAACL-HLT 2018*, New Orleans, US.

11. **Sebastian Ruder**, Barbara Plank (2017). Learning to select data for transfer learning with Bayesian Optimization. In *Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing*, Copenhagen, Denmark.

12. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2016). A Hierarchical Model of Reviews for Aspect-based Sentiment Analysis. In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing*, pages 999–1005, Austin, Texas, US.

Journal publications

13. **Sebastian Ruder**, Ivan Vulić, Anders Søgaard (2019). A Survey Of Cross-lingual Word Embedding Models. To be published in *Journal of Artificial Intelligence Research*.

Refereed workshop publications

14. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2016). Towards a continuous modeling of natural language domains. In *Proceedings of EMNLP 2016 Workshop on Uphill Battles in Language Processing: Scaling Early Achievements to Robust Methods*, pages 53-57, Austin, Texas, US.

15. Ian D. Wood and **Sebastian Ruder** (2016). Emoji as emotion tags for tweets. In *Emotion and Sentiment Analysis Workshop, LREC*, Portorož, Slovenia.

16. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2016). INSIGHT-1 at SemEval-2016 Task 4: Convolutional Neural Networks for Sentiment Classification and Quantification. In *Proceedings of the 10th International Workshop on Semantic Evaluation (SemEval 2016)*, San Diego, US.

17. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2016). INSIGHT-1 at SemEval-2016 Task 5: Convolutional Neural Networks for Multilingual Aspect-based Sentiment Analysis. In *Proceedings of the 10th International Workshop on Semantic Evaluation (SemEval 2016)*, San Diego, US.

Preprints

18. Matthew Peters*, **Sebastian Ruder***, Noah A. Smith (2019). To Tune or Not to Tune? Adapting Pretrained Representations to Diverse Tasks. arXiv preprint arXiv:1903.05987.

19. Goran Glavas, Robert Litschko, **Sebastian Ruder**, Ivan Vulić (2019). How to (Properly) Evaluate Cross-Lingual Word Embeddings: On Strong Baselines, Comparative Analyses, and Some Misconceptions. arXiv preprint arXiv:1902.00508.

20. Chris Hokamp, **Sebastian Ruder**, John Glover (2018). Off-the-Shelf Unsupervised NMT. arXiv preprint arXiv:1811.02278.

21. **Sebastian Ruder** (2017). An Overview of Multi-Task Learning in Deep Neural Networks. arXiv preprint arXiv:1706.05098.

22. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2017). Data Selection Strategies for Multi-Domain Sentiment Analysis. arXiv preprint arXiv:1702.02426.

---

*Equal contribution.

23. **Sebastian Ruder**, Parsa Ghaffari, John G. Breslin (2017). Knowledge Adaptation: Teaching to Adapt. arXiv preprint arXiv:1702.02052.

24. **Sebastian Ruder** (2016). An overview of gradient descent optimization algorithms. arXiv preprint arXiv:1609.04747.

Certificates and awards

- Google Developer Expert – Machine Learning   *12/2017 – 02/2019*
- Scholarship of the Irish Research Council   *10/2015 – 02/2019*
- Scholarship of the *Cusanuswerk*, one of the 13 German sponsorship organizations   *04/2014 – 09/2015*
- Microsoft Certified Professional (Programming in C#)   *06/2015*
- Best Delegate award in various Model United Nations conferences   *11/2012 – 01/2014*
- Second and third prizes *Bundeswettbewerb Fremdsprachen*, national foreign languages competition *2007 – 2008*
- First and second prizes *Landeswettbewerb Mathematik*, state mathematics competition   *2006 – 2008*

Languages and Technologies

Programming Languages: Python, Java, C#, R, C, LaTeX, Prolog, JavaScript, SPARQL
Technologies: SciPy, NumPy, Keras, TensorFlow, DyNet, scikit-learn, NLTK, CoreNLP, MALLET, Weka, UNIX, Git
Natural Languages: Fluent in German and English, advanced in French and Spanish, beginner in Portuguese and Latin
Open Source Contributions: The OpenCog Foundation

Service and professional activities

- **Reviewer for journals:** Transactions on Audio, Speech and Language Processing; Artificial Intelligence; IEEE Computational Intelligence Magazine; Natural Language Engineering

- **Reviewer for workshops:** RELNLP 2018, DeepLo 2018, SemEval-2016 Task 5

- **Reviewer for conferences:** ACL 2018, 2019; ICML 2019; NAACL-HLT 2019; ICLR 2019; EMNLP 2018; CoNLL 2018

- **Organizer**: NLP Dublin Meetup[1]; NLP Session at Deep Learning Indaba 2018[2], 2019

- **Workshop organizer:** 4th Workshop on Representation Learning for NLP (RepL4NLP) at ACL 2019

- **Tutorial organizer:** Transfer Learning in NLP at NAACL-HLT 2019; Unsupervised Cross-lingual Representation Learning at ACL 2019

- **Chair**: Program chair at EurNLP 2019[3]; Publication chair at CoNLL 2019; Publicity chair at EMNLP 2019

Talks

Talks are available at `http://ruder.io/talks/`.

---

[1] `https://www.meetup.com/NLP-Dublin/`
[2] `http://www.deeplearningindaba.com/schedule-2018.html`
[3] `https://www.eurnlp.org/`