LT2313: Computational Semantics (CS) Reading list

Simon Dobnik
CLASP, University of Gothenburg
simon.dobnik@gu.se

March 19, 2021

- Jay Alammar. 2018. The illustrated BERT, ELMo, and co. (how nlp cracked transfer learning) [blog post]. Technical report, http://jalammar.github.io.
- Marco Baroni and Gemma Boleda. 2014. Distributional semantics. Lectures notes: Cs 388: Natural language processing, University of Texas at Austin.
- Marco Baroni, Georgiana Dinu, and Germán Kruszewski. 2014. Don't count, predict! a systematic comparison of context-counting vs. context-predicting semantic vectors. In *Proceedings of the 52nd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 238–247, Baltimore, Maryland. Association for Computational Linguistics.
- Marco Baroni and Alessandro Lenci. 2010. Distributional memory: A general framework for corpusbased semantics. *Computational Linguistics*, 36(4):673–721.
- Lawrence W. Barsalou. 2008. Grounded cognition. Annual Review of Psychology, 59:617-645.
- Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. 2021. On the dangers of stochastic parrots: Can language models be too big? In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, FAccT '21, pages 610–623, New York, NY, USA. Association for Computing Machinery.
- Emily M. Bender and Alexander Koller. 2020. Climbing towards NLU: On meaning, form, and understanding in the age of data. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, pages 5185–5198, Online. Association for Computational Linguistics.
- Yoshua Bengio, Réjean Ducharme, Pascal Vincent, and Christian Janvin. 2003. A neural probabilistic language model. *Journal of Machine Learning Research*, 3(6):1137–1155.
- Steven Bird, Ewan Klein, and Edward Loper. 2009. Natural language processing with Python. O'Reilly.
- Yuri Bizzoni and Simon Dobnik. 2016. Distributional semantic models for detection of textual entailment. In *Proceedings of the Sixth Swedish language technology conference (SLTC)*, pages 1–5, Umeå. Umeå University.
- Patrick Blackburn and Johan Bos. 2005. Representation and inference for natural language. A first course in computational semantics. CSLI Publications.
- Samuel Bowman and Xiaodan Zhu. 2019. Deep learning for natural language inference. In *Proceedings* of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics: Tutorials, pages 6–8, Minneapolis, Minnesota. Association for Computational Linguistics.

- Samuel R. Bowman, Gabor Angeli, Christopher Potts, and Christopher D. Manning. 2015a. A large annotated corpus for learning natural language inference. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Association for Computational Linguistics.
- Samuel R. Bowman, Jon Gauthier, Abhinav Rastogi, Raghav Gupta, Christopher D. Manning, and Christopher Potts. 2016. A fast unified model for parsing and sentence understanding. In *Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, pages 1466–1477, Berlin, Germany. Association for Computational Linguistics.
- Samuel R. Bowman, Christopher Potts, and Christopher D. Manning. 2015b. Recursive neural networks can learn logical semantics. In *Proceedings of the 3rd Workshop on Continuous Vector Space Models and their Compositionality*, pages 12–21, Beijing, China. Association for Computational Linguistics.
- Gennaro Chierchia and Sally McConnell-Ginet. 2000. *Meaning and grammar: an introduction to semantics*, 2 edition. MIT Press, Cambridge, Mass.
- Stephen Clark. 2015. Vector space models of lexical meaning. In Shalom Lappin and Chris Fox, editors, *Handbook of Contemporary Semantics second edition*, chapter 16, pages 493–522. Wiley Blackwell.
- Alexis Conneau, Douwe Kiela, Holger Schwenk, Loïc Barrault, and Antoine Bordes. 2017. Supervised learning of universal sentence representations from natural language inference data. *arXiv*, arXiv:1705.02364 [cs.CL]:1–12.
- Jacob Devlin, Ming-Wei Chang, Kenton Lee, and Kristina Toutanova. 2018. BERT: pre-training of deep bidirectional transformers for language understanding. *arXiv*, arXiv:1810.04805 [cs.CL]:1–14.
- J. van Eijck and Christina Unger. 2010. *Computational semantics with functional programming*. Cambridge University Press, Cambridge.
- Katrin Erk. 2012. Vector space models of word meaning and phrase meaning: A survey. *Language and Linguistics Compass*, 6(10):635–653.
- Katrin Erk and Aurelie Herbelot. 2020. How to marry a star: probabilistic constraints for meaning in context. *arXiv*, arXiv:2009.07936 [cs.CL].
- John R. Firth. 1957. A synopsis of linguistic theory 1930–1955. *Studies in linguistic analysis*, pages 1–32
- Mehdi Ghanimifard and Simon Dobnik. 2017. Learning to compose spatial relations with grounded neural language models. In *Proceedings of IWCS 2017: 12th International Conference on Computational Semantics*, pages 1–12, Montpellier, France. Association for Computational Linguistics.
- Noah D. Goodman and Michael C. Frank. 2016. Pragmatic language interpretation as probabilistic inference. *Trends in Cognitive Sciences*, 20(11):818–829.
- Stevan Harnad. 1990. The symbol grounding problem. *Physica D*, 42(1–3):335–346.
- Zellig S. Harris. 1954. Distributional structure. Word, 10(2-3):146–162.
- Steven Hewitt. 2017. Textual entailment with tensorflow: Using neural networks to explore natural language. Tutorial and code, O'Reilly and TensorFlow.
- Felix Hill, Roi Reichart, and Anna Korhonen. 2015. Simlex-999: Evaluating semantic models with (genuine) similarity estimation. *Computational Linguistics*, 41(4):665–695.

- Dan Jurafsky and James H. Martin. 2019. Speech and language processing: an introduction to natural language processing, computational linguistics, and speech recognition. Third edition draft, Stanford University and University of Colorado at Boulder.
- Mikael Kågebäck and Hans Salomonsson. 2016. Word sense disambiguation using a bidirectional lstm. In 5th Workshop on Cognitive Aspects of the Lexicon (CogALex). Association for Computational Linguistics.
- Hobson Lane, Cole Howard, and Hannes Max Hapke. 2019. *Natural language processing in action: understanding, analyzing, and generating text with Python*. Manning Publications.
- Shalom Lappin and Chris Fox, editors. 2015. *The Handbook of Contemporary Semantic Theory*, 2nd edition. Wiley-Blackwell.
- Omer Levy, Yoav Goldberg, and Ido Dagan. 2015. Improving distributional similarity with lessons learned from word embeddings. *Transactions of the Association for Computational Linguistics*, 3:211–225.
- Gabriel Loye. 2019. Long Short-Term Memory: From zero to hero with PyTorch. Technical report, Floydhub.
- Martin Malmsten, Love Börjeson, and Chris Haffenden. 2020. Playing with words at the national library of sweden making a swedish bert. *arXiv*, arXiv:2007.01658 [cs.CL]:1–5.
- Christopher Manning. 2017a. Representations for language: From word embeddings to sentence meanings. talk, Stanford University, Simons Institute, Berkeley.
- Christopher D. Manning. 2005. An introduction to formal computational semantics. Lecture notes for CS224N/Ling 280.
- Christopher D. Manning. 2017b. Computational semantics. Lecture notes: Cs224n natural language processing, Stanford University.
- Chris McCormick and Nick Ryan. 2019. Bert word embeddings tutorial. Technical report, http://www.mccormickml.com.
- Tomas Mikolov, Kai Chen, Greg Corrado, and Jeffrey Dean. 2013a. Efficient estimation of word representations in vector space. ArXiv preprint arXiv:1301.3781.
- Tomas Mikolov, Ilya Sutskever, Kai Chen, Greg S Corrado, and Jeff Dean. 2013b. Distributed representations of words and phrases and their compositionality. In *Advances in neural information processing systems*, pages 3111–3119.
- Jeff Mitchell and Mirella Lapata. 2008. Vector-based models of semantic composition. In *Proceedings* of ACL-08: HLT, pages 236–244, Columbus, Ohio.
- Jeff Mitchell and Mirella Lapata. 2010. Composition in distributional models of semantics. *Cognitive Science*, 34(8):1388–1429.
- Richard Montague. 1974. *Formal Philosophy: Selected Papers of Richard Montague*. Yale University Press, New Haven. Ed. and with an introduction by Richmond H. Thomason.
- Joakim Nivre. 2015. Word senses. Lecture slides (adapted from dan jurafsky and james martin), Uppsala University, December 8.
- Christopher Olah. 2015. Understanding LSTMs. Technical report, Google Brain.

- Jeffrey Pennington, Richard Socher, and Christopher Manning. 2014. Glove: Global vectors for word representation. In *Proceedings of the 2014 conference on empirical methods in natural language processing (EMNLP)*, pages 1532–1543.
- Matthew Peters, Mark Neumann, Mohit Iyyer, Matt Gardner, Christopher Clark, Kenton Lee, and Luke Zettlemoyer. 2018. Deep contextualized word representations. In *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, Volume 1 (Long Papers)*, pages 2227–2237, New Orleans, Louisiana. Association for Computational Linguistics.
- Stephen G. Pulman. 2005. Higher order logic in semantics. lecture notes, Department of Computer Science, University of Oxford, Oxford, United Kingdom.
- Radim Řehůřek. 2019. models.word2vec Word2vec embeddings. Technical report, Gensim.
- Radim Řehůřek and Petr Sojka. 2010. Software framework for topic modelling with large corpora. In *Proceedings of the LREC 2010 Workshop on New Challenges for NLP Frameworks*, pages 45–50, Valletta, Malta. ELRA.
- Deb Roy. 2005. Semiotic schemas: a framework for grounding language in action and perception. *Artificial Intelligence*, 167(1-2):170–205.
- Carina Silberer and Mirella Lapata. 2014. Learning grounded meaning representations with autoencoders. In *Proceedings of the 52nd Annual Meeting of the Association for Computational Linguistics*, pages 721–732, Baltimore, Maryland, USA. Association for Computational Linguistics.
- Matthew Stone. 2016. Semantics and computation. In Maria Aloni and Paul Dekker, editors, *The Cambridge Handbook of Formal Semantics*, Cambridge Handbooks in Language and Linguistics, chapter 25, pages 775–800. Cambridge University Press, Cambridge, UK.
- Aarne Talman, Anssi Yli-Jyrä, and Jörg Tiedemann. 2019. Sentence embeddings in nli with iterative refinement encoders. *Natural Language Engineering*, 25(4):467–482.
- Peter D Turney, Patrick Pantel, et al. 2010. From frequency to meaning: Vector space models of semantics. *Journal of artificial intelligence research*, 37(1):141–188.