- 1. Neural Lattice Language Models (Buckman and Neubig 2018)
- 2. Quasi-Recurrent Neural Networks (Bradbury et al. 2016)
- 3. Learned in translation: Contextualized word vectors (McCann et al. 2017)
- 4. Deep contextualized word representations Blogpost (Peters et al. 2018)
- 5. Google Vizier: A Service for Black-Box Optimization (Golovin et al. 2017)
- 6. Zoneout: Regularizing RNNs by Randomly Preserving Hidden Activations (Krueger et al. 2016)
- 7. Regularization of neural networks using dropconnect (Wan et al. 2013)
- 8. Binarized neural networks: Training deep neural networks with weights and activations constrained to+ 1 or-1 (Courbariaux et al. 2016)
- 9. Hierarchical multiscale recurrent neural networks (Chung, Ahn, and Bengio 2016)
- 10. Deliberation Networks: Sequence Generation Beyond One-Pass Decoding (Xia et al. 2017)

## References

Bradbury, James, Stephen Merity, Caiming Xiong, and Richard Socher. 2016. "Quasi-Recurrent Neural Networks." arXiv Preprint arXiv:1611.01576.

Buckman, Jacob, and Graham Neubig. 2018. "Neural Lattice Language Models." arXiv Preprint arXiv:1803.05071.

Chung, Junyoung, Sungjin Ahn, and Yoshua Bengio. 2016. "Hierarchical Multiscale Recurrent Neural Networks." arXiv Preprint arXiv:1609.01704.

Courbariaux, Matthieu, Itay Hubara, Daniel Soudry, Ran El-Yaniv, and Yoshua Bengio. 2016. "Binarized Neural Networks: Training Deep Neural Networks with Weights and Activations Constrained To+ 1 or-1." arXiv Preprint arXiv:1602.02830.

Golovin, Daniel, Benjamin Solnik, Subhodeep Moitra, Greg Kochanski, John Karro, and D Sculley. 2017. "Google Vizier: A Service for Black-Box Optimization." In *Proceedings of the 23rd Acm Sigkdd International Conference on Knowledge Discovery and Data Mining*, 1487–95. ACM.

Krueger, David, Tegan Maharaj, János Kramár, Mohammad Pezeshki, Nicolas Ballas, Nan Rosemary Ke, Anirudh Goyal, Yoshua Bengio, Aaron Courville, and Chris Pal. 2016. "Zoneout: Regularizing Rnns by Randomly Preserving Hidden Activations." arXiv Preprint arXiv:1606.01305.

McCann, Bryan, James Bradbury, Caiming Xiong, and Richard Socher. 2017. "Learned in Translation: Contextualized Word Vectors." In *Advances in Neural Information Processing Systems*, 6297–6308.

Peters, Matthew E, Mark Neumann, Mohit Iyyer, Matt Gardner, Christopher Clark, Kenton Lee, and Luke Zettlemoyer. 2018. "Deep Contextualized Word

Representations."  $arXiv\ Preprint\ arXiv:1802.05365.$ 

Wan, Li, Matthew Zeiler, Sixin Zhang, Yann Le Cun, and Rob Fergus. 2013. "Regularization of Neural Networks Using Dropconnect." In *International Conference on Machine Learning*, 1058–66.

Xia, Yingce, Fei Tian, Lijun Wu, Jianxin Lin, Tao Qin, Nenghai Yu, and Tie-Yan Liu. 2017. "Deliberation Networks: Sequence Generation Beyond One-Pass Decoding." In *Advances in Neural Information Processing Systems*, 1782–92.