











- [2] I. Goodfellow, Y. Bengio, and A. Courville. *Deep learning*. MIT Press, Massachusetts, USA, 2016.
- [3] A. Graves. Generating sequences with recurrent neural networks. ArXiv: 1308.0850, 2013.
- [4] K. He, X. Zhang, S. Ren, and J. Sun. Delving deep into rectifiers: surpassing human-level performance on ImageNet classification. In *Proc. of the IEEE Int. Conf. on Computer Vision (ICCV)*, pages 1026–1034, 2015.
- [5] S. Hochreiter and J. Schmidhuber. Long short-term memory. *Neural Comput.*, 9(8):1735–1780, Nov. 1997.
- [6] N. S. Keskar, D. Mudigere, J. Nocedal, M. Smelyanskiy, and P. T. P. Tang. On large-batch training for deep learning: generalization gap and sharp minima. In *Proc. of the Int. Conf. on Learning Representations (ICLR)*, 2017.
- [7] D. P. Kingma and J. L. Ba. Adam: a method for stochastic optimization. In *Proc. of the Int. Conf. on Learning Representations (ICLR)*, 2015.
- [8] A. Krizhevsky, I. Sutskever, and G. Hinton. ImageNet classification with deep convolutional neural networks. In F. Pereira, C. J. C. Burges, L. Bottou, and K. Q. Weinberger, editors, *Advances in Neural Information Processing Systems (NIPS)*, volume 25, pages 1097–1105. Curran Associates Inc., 2012.
- [9] K. Kushlev, J. Proulx, and E. W. Dunn. "silence your phones": Smartphone notifications increase inattention and hyperactivity symptoms. In *Proc CHI '16*, pages 1011–1020. ACM, 2016.
- [10] N. D. Lane and P. Georgiev. Can deep learning revolutionize mobile sensing? In *Proceedings of the 16th International Workshop on Mobile Computing Systems and Applications, HotMobile '15*, pages 117–122. ACM, 2015.
- [11] N. D. Lane, E. Miluzzo, H. Lu, D. Peebles, T. Choudhury, and A. T. Campbell. A survey of mobile phone sensing. *Comm. Mag.*, 48(9):140–150, Sept. 2010.
- [12] C. D. Manning, P. Raghavan, and H. Schütze. *Introduction to information retrieval*. Cambridge University Press, Cambridge, UK, 2008.
- [13] D. Neil, M. Pfeiffer, and S.-C. Liu. Phased lstm: Accelerating recurrent network training for long or event-based sequences. In D. D. Lee, M. Sugiyama, U. V. Luxburg, I. Guyon, and R. Garnett, editors, *Advances in Neural Information Processing Systems (NIPS)*, volume 29, pages 3882–3890. Curran Associates, Inc., 2016.
- [14] R. Pascanu, T. Mikolov, and Y. Bengio. On the difficulty of training recurrent neural networks. In *Proc. of the Int. Conf. on Machine Learning (ICML)*, pages 1310–1318, 2013.
- [15] M. Pielot, T. Dingler, J. S. Pedro, and N. Oliver. When attention is not scarce - detecting boredom from mobile phone usage. In *Proc. UbiComp '15, UbiComp '15*, pages 825–836. ACM, 2015.
- [16] M. Pielot and L. Rello. Productive, anxious, lonely - 24 hours without push notifications. In *MobileHCI '17*, 2017.
- [17] S. Servia-Rodríguez, K. K. Rachuri, C. Mascolo, P. J. Rentfrow, N. Lathia, and G. M. Sandstrom. Mobile sensing at the service of mental well-being: A large-scale longitudinal study. In *Proc. WWW '17*, pages 103–112, 2017.
- [18] C. Stothart, A. Mitchum, and C. Yehnert. The attentional cost of receiving a cell phone notification. *Journal of experimental psychology: human perception and performance*, 41(4):893, 2015.
- [19] Theano Development Team. Theano: A Python framework for fast computation of mathematical expressions. *arXiv e-prints*, abs/1605.02688, May 2016.
- [20] L. D. Turner, S. M. Allen, and R. M. Whitaker. Interruptibility prediction for ubiquitous systems: Conventions and new directions from a growing field. In *Proc UbiComp '15*. ACM, 2015.
- [21] S. Yao, S. Hu, Y. Zhao, A. Zhang, and T. Abdelzaher. Deepsense: A unified deep learning framework for time-series mobile sensing data processing. *arXiv preprint arXiv:1611.01942*, 2016.