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7. J. K. Darby and H. Hollien, Vocal and speech patterns of depressive patients, *Folia Phoniatrica et Logopaedica* **29**, 279 (1977).
8. S. Harati, A. Crowell, H. Mayberg and S. Nemati, Depression severity classification from speech emotion, in *EMBC*, 2018.
9. J. F. Cohn, T. S. Kruez, I. Matthews, Y. Yang, M. H. Nguyen, M. T. Padilla, F. Zhou and F. De la Torre, Detecting depression from facial actions and vocal prosody, in *Affective Computing and Intelligent Interaction and Workshops, 2009. ACII 2009. 3rd International Conference on*, 2009.
10. A. H. Farabaugh, S. Bitran, J. Witte, J. Alpert, S. Chuzi, A. J. Clain, L. Baer, M. Fava, P. J. McGrath, C. Dording *et al.*, Anxious depression and early changes in the hamd-17 anxiety-somatization factor items and antidepressant treatment outcome, *International Clinical Psychopharmacology* **25**, p. 214 (2010).
11. A. Pampouchidou, K. Marias, M. Tsiknakis, P. Simos, F. Yang and F. Meriaudeau, Designing a framework for assisting depression severity assessment from facial image analysis, in *Signal and Image Processing Applications (ICSIPA), 2015 IEEE International Conference on*, 2015.
12. R. Ramasubbu, M. R. Brown, F. Cortese, I. Gaxiola, B. Goodyear, A. J. Greenshaw, S. M. Dursun and R. Greiner, Accuracy of automated classification of major depressive disorder as a function of symptom severity, *NeuroImage: Clinical* **12**, 320 (2016).
13. K. Anis, H. Zakia, D. Mohamed and C. Jeffrey, Detecting depression severity by interpretable representations of motion dynamics, in *2018 13th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2018)*, 2018.
14. H. Dibeklioglu, Z. Hammal and J. F. Cohn, Dynamic multimodal measurement of depression severity using deep autoencoding, *IEEE Journal of Biomedical and Health Informatics* **22** (2018).
15. S. Harati, A. Crowell, H. Mayberg, J. Kong and S. Nemati, Discriminating clinical phases of recovery from major depressive disorder using the dynamics of facial expression, in *Engineering in Medicine and Biology Society (EMBC), 2016 IEEE*, 2016.
16. C. Busso, M. Bulut, C. Lee, A. Kazemzadeh, E. Mower and S. Kim, Iemocap: Interactive emotional dyadic motion capture database, *Language resources and evaluation* **42**, p. 335 (2008).
17. A. Graves, A. Mohamed and G. Hinton, Speech recognition with deep recurrent neural networks, in *ICASSP*, 2013.
18. R. S. Sutton and A. G. Barto, *Reinforcement learning: An introduction* (MIT press, 2018).
19. S. Nemati, H. L. Li-wei and R. P. Adams, Learning outcome-discriminative dynamics in multi-variate physiological cohort time series, in *EMBC*, 2013.
20. S. Hochreiter and J. Schmidhuber, Long short-term memory, *Neural computation* **9**, 1735 (1997).
21. C. Cortes and V. Vapnik, Support-vector networks, *Machine learning* **20**, 273 (1995).
22. L. Breiman, *Classification and regression trees* (Routledge, 2017).
23. J. Friedman, T. Hastie, R. Tibshirani *et al.*, Additive logistic regression: a statistical view of boosting (with discussion and a rejoinder by the authors), *The annals of statistics* , 337 (2000).
24. B. J. Parker, S. Günter and J. Bedo, Stratification bias in low signal microarray studies, *BMC bioinformatics* **8**, p. 326 (2007).
25. A. Airola, T. Pahikkala, W. Waegeman, B. De Baets and T. Salakoski, A comparison of auc estimators in small-sample studies, in *Machine learning in systems biology*, 2009.
26. J. A. Hanley and B. J. McNeil, The meaning and use of the area under a receiver operating characteristic (roc) curve., *Radiology* **143**, 29 (1982).
27. E. Reinertsen, S. P. Shashikumar, A. J. Shah, S. Nemati and G. D. Clifford, Multiscale network dynamics between heart rate and locomotor activity are altered in schizophrenia, *Physiological measurement* **39**, p. 115001 (2018).