

References

- [1] HB Ai, XY Cui, L Tang, WP Zhu, XB Ning, and XX Yang. [studies on the time domain and power spectrum of high frequency ecg in normal mice]. *Sheng li xue bao:[Acta physiologica Sinica]*, 48(5):512–516, 1996.
- [2] Rodrigo Varejão Andreão, Bernadette Dorizzi, and Jérôme Boudy. Ecg signal analysis through hidden markov models. *Biomedical Engineering, IEEE Transactions on*, 53(8):1541–1549, 2006.
- [3] Yoshua Bengio. Learning deep architectures for ai. *Foundations and trends® in Machine Learning*, 2(1):1–127, 2009.
- [4] Yoshua Bengio, Pascal Lamblin, Dan Popovici, Hugo Larochelle, et al. Greedy layer-wise training of deep networks. *Advances in neural information processing systems*, 19:153, 2007.
- [5] Christopher M Bishop et al. *Pattern recognition and machine learning*, volume 4. springer New York, 2006.
- [6] Manuel Blanco-Velasco, Binwei Weng, and Kenneth E Barner. Ecg signal denoising and baseline wander correction based on the empirical mode decomposition. *Computers in biology and medicine*, 38(1):1–13, 2008.
- [7] Gari D Clifford, Francisco Azuaje, and McScharry. Advanced tools for ecg analysis, September 2006.
- [8] Gari D Clifford, Francisco Azuaje, Patrick McSharry, et al. *Advanced methods and tools for ECG data analysis*. Artech House, Boston, 2006.
- [9] Ronan Collobert and Jason Weston. A unified architecture for natural language processing: Deep neural networks with multitask learning. In *Proceedings of the 25th international conference on Machine learning*, pages 160–167. ACM, 2008.
- [10] Philip De Chazal, Maria O’Dwyer, and Richard B Reilly. Automatic classification of heartbeats using ecg morphology and heartbeat interval features. *Biomedical Engineering, IEEE Transactions on*, 51(7):1196–1206, 2004.
- [11] Richard O Duda, Peter E Hart, and David G Stork. *Pattern classification*. John Wiley & Sons, 2012.
- [12] Dumitru Erhan, Pierre-Antoine Manzagol, Yoshua Bengio, Samy Bengio, and Pascal Vincent. The difficulty of training deep architectures and the effect of unsupervised pre-training. In *International Conference on Artificial Intelligence and Statistics*, pages 153–160, 2009.
- [13] Adam Gacek and Witold Pedrycz. A genetic segmentation of ecg signals. *Biomedical Engineering, IEEE Transactions on*, 50(10):1203–1208, 2003.

- [14] Geoffrey E Hinton and Ruslan R Salakhutdinov. Reducing the dimensionality of data with neural networks. *Science*, 313(5786):504–507, 2006.
- [15] Tanis Mar, Sebastian Zaunseder, Juan Pablo Martinez, Mariano Llamedo, and Rüdiger Poll. Optimization of ecg classification by means of feature selection. *Biomedical Engineering, IEEE Transactions on*, 58(8):2168–2177, 2011.
- [16] RG Mark, PS Schluter, G Moody, P Devlin, and D Chernoff. An annotated ecg database for evaluating arrhythmia detectors. In *IEEE Transactions on Biomedical Engineering*, volume 29, pages 600–600, 1982.
- [17] George B Moody and Roger G Mark. The mit-bih arrhythmia database on cd-rom and software for use with it. In *Computers in Cardiology 1990, Proceedings.*, pages 185–188, 1990.
- [18] Andrew Ng, Jiquan Ngiam, Chuan Y. Foo, Yifan Mai, and Caroline Suen. UFLDL Tutorial. http://ufldl.stanford.edu/wiki/index.php/UFLDL_Tutorial, 2010.
- [19] Jiquan Ngiam, Adam Coates, Ahbik Lahiri, Bobby Prochnow, Quoc V Le, and Andrew Y Ng. On optimization methods for deep learning. In *Proceedings of the 28th International Conference on Machine Learning (ICML-11)*, pages 265–272, 2011.
- [20] O Sayadi and MB Shamsollahi. A model-based bayesian framework for ecg beat segmentation. *Physiological Measurement*, 30(3):335, 2009.
- [21] Cristian Vidal Silva, Andrew Philominraj, and Carolina del Río. *A DSP Practical Application: Working on ECG Signal*. INTECH Open Access Publisher, 2011.
- [22] HJLM Vullings, MHG Verhaegen, and H Verbruggen. Automated ecg segmentation with dynamic time warping. In *Engineering in Medicine and Biology Society, 1998. Proceedings of the 20th Annual International Conference of the IEEE*, pages 163–166. IEEE, 1998.
- [23] HJLM Vullings, MHG Verhaegen, and Henk B Verbruggen. Ecg segmentation using time-warping. In *Advances in Intelligent Data Analysis Reasoning about Data*, pages 275–285. Springer, 1997.
- [24] Yaniv Zigel, Arnon Cohen, and Amos Katz. The weighted diagnostic distortion (wdd) measure for ecg signal compression. *Biomedical Engineering, IEEE Transactions on*, 47(11):1422–1430, 2000.
- [25] Will Zou, Shenghuo Zhu, Kai Yu, and Andrew Y Ng. Deep learning of invariant features via simulated fixations in video. In *Advances in Neural Information Processing Systems*, pages 3212–3220, 2012.