

REFERENCES

- [1] Amina Adadi and Mohammed Berrada. 2018. Peeking inside the black-box: A survey on Explainable Artificial Intelligence (XAI). *IEEE Access* 6 (2018), 52138–52160.
- [2] Tadas Baltrušaitis, Chaitanya Ahuja, and Louis-Philippe Morency. 2019. Multi-modal machine learning: A survey and taxonomy. *IEEE Transactions on Pattern Analysis and Machine Intelligence* 41, 2 (2019), 423–443.
- [3] Mark T Bayley, Amanda Hurdowar, Carol L Richards, Nicol Korner-Bitensky, Sharon Wood-Dauphinee, Janice J Eng, Marilyn McKay-Lyons, Edward Harrison, Robert Teasell, Margaret Harrison, et al. 2012. Barriers to implementation of stroke rehabilitation evidence: findings from a multi-site pilot project. *Disability and Rehabilitation* 34, 19 (2012), 1633–1638.
- [4] Or Biran and Courtenay Cotton. 2017. Explanation and justification in machine learning: A survey. In *IJCAI-17 workshop on explainable AI (XAI)*, Vol. 8. 1.
- [5] Samarjit Das, Laura Trutoiu, Akihiko Murai, Dunbar Alcindor, Michael Oh, Fernando De la Torre, and Jessica Hodgins. 2011. Quantitative measurement of motor symptoms in Parkinson's disease: A study with full-body motion capture data. In *2011 Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. IEEE, 6789–6792.
- [6] Finale Doshi-Velez and Been Kim. 2017. Towards a rigorous science of interpretable machine learning. *arXiv preprint arXiv:1702.08608* (2017).
- [7] Mengnan Du, Ninghao Liu, and Xia Hu. 2018. Techniques for interpretable machine learning. *arXiv preprint arXiv:1808.00033* (2018).
- [8] Valery L Feigin, Bo Norrving, and George A Mensah. 2017. Global burden of stroke. *Circulation research* 120, 3 (2017), 439–448.
- [9] Yu Guan and Thomas Plötz. 2017. Ensembles of Deep LSTM Learners for Activity Recognition Using Wearables. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol.* 1, 2, Article 11 (June 2017), 28 pages. <https://doi.org/10.1145/3090076>
- [10] David Gunning. 2017. Explainable artificial intelligence (xai). *Defense Advanced Research Projects Agency (DARPA)* 2 (2017).
- [11] Andreas Holzinger. 2018. From machine learning to explainable AI. In *2018 World Symposium on Digital Intelligence for Systems and Machines (DISA)*. IEEE, 55–66.
- [12] Kevin Huang. 2015. *Exploring in-home monitoring of rehabilitation and creating an authoring tool for physical therapists*. Ph.D. Dissertation. Carnegie Mellon University.
- [13] Saif Khairat, David Marc, William Crosby, and Ali Al Sanousi. 2018. Reasons for physicians not adopting clinical decision support systems: critical analysis. *JMIR medical informatics* 6, 2 (2018), e24.
- [14] Min Hun Lee. 2019. An Intelligent Decision Support System for Stroke Rehabilitation Assessment. In *The 21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '19)*. ACM, 694–696. <https://doi.org/10.1145/3308561.3356106>
- [15] Min Hun Lee, Daniel P. Siewiorek, Asim Smailagic, Alexandre Bernardino, and Sergi Bermúdez i Badia. 2019. Learning to Assess the Quality of Stroke Rehabilitation Exercises. In *Proceedings of the 24th International Conference on Intelligent User Interfaces (IUI '19)*. ACM, 218–228. <https://doi.org/10.1145/3301275.3302273>
- [16] Min Hun Lee, Daniel P. Siewiorek, Asim Smailagic, Alexandre Bernardino, and Sergi Bermúdez i Badia. 2020. Interactive Hybrid Approach to Combine Machine and Human Intelligence for Personalized Rehabilitation Assessment. In *Proceedings of the ACM Conference on Health, Inference, and Learning (CHIL '20)*. ACM, 160–169. <https://doi.org/10.1145/3368555.3384452>
- [17] Min Hun Lee, Daniel P. Siewiorek, Asim Smailagic, Alexandre Bernardino, and Sergi Bermúdez i Badia. 2020. Opportunities of a Machine Learning-based Decision Support System for Stroke Rehabilitation Assessment. *arXiv:2002.12261*
- [18] Susan B O'Sullivan, Thomas J Schmitz, and George Fulk. 2019. *Physical rehabilitation*. FA Davis.
- [19] Madhuri Panwar, Dwaipayan Biswas, Harsh Bajaj, Michael Jöbges, Ruth Turk, Koushik Maharatna, and Amit Acharyya. 2019. Rehab-Net: Deep Learning Framework for Arm Movement Classification Using Wearable Sensors for Stroke Rehabilitation. *IEEE Transactions on Biomedical Engineering* 66, 11 (2019), 3026–3037.
- [20] Adam Paszke, Sam Gross, Soumith Chintala, Gregory Chanan, Edward Yang, Zachary DeVito, Zeming Lin, Alban Desmaison, Luca Antiga, and Adam Lerer. 2017. Automatic differentiation in PyTorch. (2017).
- [21] Fabian Pedregosa, Gaël Varoquaux, Alexandre Gramfort, Vincent Michel, Bertrand Thirion, Olivier Grisel, Mathieu Blondel, Peter Prettenhofer, Ron Weiss, Vincent Dubourg, et al. 2011. Scikit-learn: Machine learning in Python. *Journal of machine learning research* 12, Oct (2011), 2825–2830.
- [22] Brandon Rohrer, Susan Fasoli, Hermano Igo Krebs, Richard Hughes, Bruce Volpe, Walter R Frontera, Joel Stein, and Neville Hogan. 2002. Movement smoothness changes during stroke recovery. *Journal of Neuroscience* 22, 18 (2002), 8297–8304.
- [23] Julie Sanford, Julie Moreland, Laurie R Swanson, Paul W Stratford, and Carolyn Gowland. 1993. Reliability of the Fugl-Meyer assessment for testing motor performance in patients following stroke. *Physical therapy* 73, 7 (1993), 447–454.
- [24] Edward Taub, David M Morris, Jean Crago, Danna Kay King, Mary Bowman, Camille Bryson, Staci Bishop, Sonya Pearson, and Sharon E Shaw. 2011. Wolf motor function test (WMFT) manual. *Birmingham: University of Alabama, CI Therapy Research Group* (2011).
- [25] David Webster and Ozkan Celik. 2014. Systematic review of Kinect applications in elderly care and stroke rehabilitation. *Journal of neuroengineering and rehabilitation* 11, 1 (2014), 108.