REFERENCES

1. Bashivan, P., Rish, I., Yeasin, M. and Codella, N., 2015. Learning representations from EEG with deep recurrent-convolutional neural networks. *arXiv preprint arXiv:1511.06448*.
2. Ruffini, G., Ibañez, D., Kroupi, E., Gagnon, J.F., Montplaisir, J., Castellano, M. and Soria-Frisch, A., 2018. Deep learning using EEG spectrograms for prognosis in idiopathic rapid eye movement behavior disorder (RBD). *bioRxiv*, p.240267.
3. Pailla, T., Miller, K.J. and Gilja, V., 2019. Autoencoders for learning template spectrograms in electrocorticographic signals. *Journal of neural engineering*, *16*(1), p.016025.
4. Ranieri, C.M., Moioli, R.C., Romero, R.A., de Araújo, M.F., De Santana, M.B., Pimentel, J.M. and Vargas, P.A., 2020, July. Unveiling Parkinson's Disease Features from a Primate Model with Deep Neural Networks. In *2020 International Joint Conference on Neural Networks (IJCNN)* (pp. 1-8). IEEE.
5. Zhang, D., Yao, L., Zhang, X., Wang, S., Chen, W., Boots, R. and Benatallah, B., 2018, April. Cascade and Parallel Convolutional Recurrent Neural Networks on EEG-based Intention Recognition for Brain Computer Interface. In *AAAI* (pp. 1703-1710).
6. Zhang, D., Yao, L., Chen, K., Wang, S., Chang, X. and Liu, Y., 2019. Making sense of spatio-temporal preserving representations for EEG-based human intention recognition. *IEEE transactions on cybernetics*.
7. Chen, J., Jiang, D., Zhang, Y. and Zhang, P., 2020. Emotion recognition from spatiotemporal EEG representations with hybrid convolutional recurrent neural networks via wearable multi-channel headset. *Computer Communications*, *154*, pp.58-65.
8. Li, Y., Yang, H., Li, J., Chen, D. and Du, M., 2020. EEG-based intention recognition with deep recurrent-convolution neural network: Performance and channel selection by Grad-CAM. *Neurocomputing*, *415*, pp.225-233.
9. Yang, Y., Wu, Q., Qiu, M., Wang, Y. and Chen, X., 2018, July. Emotion recognition from multi-channel EEG through parallel convolutional recurrent neural network. In *2018 International Joint Conference on Neural Networks (IJCNN)* (pp. 1-7). IEEE.
10. Banville, H., Chehab, O., Hyvärinen, A., Engemann, D.A. and Gramfort, A., 2021. Uncovering the structure of clinical EEG signals with self-supervised learning. *Journal of Neural Engineering*, *18*(4), p.046020.
11. Zhang, Z., Zhong, S.H. and Liu, Y., 2021. GANSER: A Self-supervised Data Augmentation Framework for EEG-based Emotion Recognition. *arXiv preprint arXiv:2109.03124*.
12. Jiang, X., Zhao, J., Du, B. and Yuan, Z., 2021, July. Self-supervised Contrastive Learning for EEG-based Sleep Staging. In *2021 International Joint Conference on Neural Networks (IJCNN)* (pp. 1-8). IEEE.

13. Banville, H., Albuquerque, I., Hyvärinen, A., Moffat, G., Engemann, D.A. and Gramfort, A., 2019, October. Self-supervised representation learning from electroencephalography signals. In *2019 IEEE 29th International Workshop on Machine Learning for Signal Processing (MLSP)* (pp. 1-6). IEEE.

14. Kostas, D., Aroca-Ouellette, S. and Rudzicz, F., 2021. BENDR: using transformers and a contrastive self-supervised learning task to learn from massive amounts of EEG data. *Frontiers in Human Neuroscience*, *15*.

15. Gramfort, A., Banville, H., Chehab, O., Hyvärinen, A. and Engemann, D., 2021, February. Learning with self-supervision on EEG data. In *2021 9th International Winter Conference on Brain-Computer Interface (BCI)* (pp. 1-2). IEEE.

16. Tang, S., Dunnmon, J., Saab, K.K., Zhang, X., Huang, Q., Dubost, F., Rubin, D. and Lee-Messer, C., 2021, September. Self-Supervised Graph Neural Networks for Improved Electroencephalographic Seizure Analysis. In *International Conference on Learning Representations*.

17. Xiao, Q., Wang, J., Ye, J., Zhang, H., Bu, Y., Zhang, Y. and Wu, H., 2021, June. Self-supervised learning for sleep stage classification with predictive and discriminative contrastive coding. In *ICASSP 2021-2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)* (pp. 1290-1294). IEEE.

18. Xu, J., Zheng, Y., Mao, Y., Wang, R. and Zheng, W.S., 2020, December. Anomaly Detection on Electroencephalography with Self-supervised Learning. In *2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)* (pp. 363-368). IEEE.

19. Caron, M., Bojanowski, P., Mairal, J. and Joulin, A., 2019. Unsupervised pre-training of image features on non-curated data. In *Proceedings of the IEEE/CVF International Conference on Computer Vision* (pp. 2959-2968).

20. Chen, T., Kornblith, S., Norouzi, M. and Hinton, G., 2020, November. A simple framework for contrastive learning of visual representations. In *International conference on machine learning* (pp. 1597-1607). PMLR.

21. Caron, M., Misra, I., Mairal, J., Goyal, P., Bojanowski, P. and Joulin, A., 2020. Unsupervised learning of visual features by contrasting cluster assignments. *Advances in Neural Information Processing Systems*, *33*, pp.9912-9924.

22. Grill, J.B., Strub, F., Altché, F., Tallec, C., Richemond, P., Buchatskaya, E., Doersch, C., Avila Pires, B., Guo, Z., Gheshlaghi Azar, M. and Piot, B., 2020. Bootstrap your own latent-a new approach to self-supervised learning. *Advances in Neural Information Processing Systems*, *33*, pp.21271-21284.

23. He, K., Fan, H., Wu, Y., Xie, S. and Girshick, R., 2020. Momentum contrast for unsupervised visual representation learning. In *Proceedings of the IEEE/CVF conference on computer vision and pattern recognition* (pp. 9729-9738).

24. Chen, X., Fan, H., Girshick, R. and He, K., 2020. Improved baselines with momentum contrastive learning. *arXiv preprint arXiv:2003.04297*.
25. Caron, M., Touvron, H., Misra, I., Jégou, H., Mairal, J., Bojanowski, P. and Joulin, A., 2021. Emerging properties in self-supervised vision transformers. In *Proceedings of the IEEE/CVF International Conference on Computer Vision* (pp. 9650-9660).
26. Devlin, J., Chang, M.W., Lee, K. and Toutanova, K., 2018. Bert: Pre-training of deep bidirectional transformers for language understanding. *arXiv preprint arXiv:1810.04805*.
27. Liu, Y., Ott, M., Goyal, N., Du, J., Joshi, M., Chen, D., Levy, O., Lewis, M., Zettlemoyer, L. and Stoyanov, V., 2019. Roberta: A robustly optimized bert pretraining approach. *arXiv preprint arXiv:1907.11692*.
28. Goldberger, A., Amaral, L., Glass, L., Hausdorff, J., Ivanov, P. C., Mark, R., ... & Stanley, H. E. (2000). PhysioBank, PhysioToolkit, and PhysioNet: Components of a new research resource for complex physiologic signals. Circulation [Online]. 101 (23), pp. e215–e220.