

A neural network based models for classification of Autism Spectrum Disorder

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Brain Imaging Analysis is among one of the most exciting fields in neuroscience. We work with the autism dataset to identify the neurocognitive differences between autistic and healthy groups. For this, the resting-state fMRI data of the two groups will be analyzed, and a network of connections between brain regions will be created. Several classification frameworks to distinguish the connectivity patterns between the groups will be developed. These classification frameworks will be optimized for interpretability and precision. Finally, we report the classification accuracy measures to justify the performance of our framework.

Keywords: LSTM neural networks, GRU neural networks, fMRI data, ASD classification