

This folder contains files:

- lasso_ridge_bn.py — 3D BN with lasso/ridge-regularized estimates of mean and variance
- stein_corrected_bn.py — 3D BN with Stein's correction applied to both mean and variance estimates
- mean_corrected_bn.py — 3D BN with Stein's correction applied only to the mean estimate
- model.py — contains model, which we used for experiments

Notes:

The overall experimental pipeline is the same as for the other two datasets.

This dataset is publicly available but requires institutional authorization.

Therefore, we do not provide the code for preprocessing the raw data. However, the entire preprocessing procedure is described in detail in the Experiments and Appendix sections of the paper.

All hyperparameters are also listed in the Appendix (Experiments section) of the paper.

Requirements

We recommend using Python 3.8+.

Install the required packages via pip:

pip install torch torchvision numpy pandas scikit-learn Pillow imageio neuroCombat