Classifying Sleep Stages with Deep Learning

Subject:

Sleep stage classification for diagnosis of sleep disorders.

Method:

- EEG signals are recorded for 8-hr long on average, but in our data we'll consider 30sec epoch and label it. This is data preprocessing.
- Apply 1-D ConvNets on the pre-processed data for feature extraction.
- Output of ConvNets is fed to Bi-RNNs for further analysis.

Milestones:

- Data generation and preprocessing.
- Apply 1D convNet on the preprocessed data.
- Apply Bi-RNN/ LSTM on the ConvNet output for analysis.
- Check with other methods for result improvement
- Slide preparation.