



Study About the Size and Quality of EEG Dataset

Deep Learning is inspired by the brain structure. Artificial neural networks are inspired by information processing of biological systems. But can deep learning help us to understand how the brain works?

Typically, these brain signals contain a lot of information, but extracting this information is not trivial. Moreover, these signals differ a lot from subject to other subject and thus it is difficult to build models that generalize well.



In this project we explore the use of brain signals, in particular investigate how the amount and the structure of this data collection impacts the accuracy of deep learning models. This includes, exploring how different number of subjects impacts the accuracy, how the accuracy changes if we train the models within or across subjects, and how this relates to the complexity of the neural network (e.g. number of parameters, running time, the depth of the architectures, etc).

In this project, you will have the opportunity to collaborate with a neuroscientist from UZH and work on a new large dataset for eye tracking with 450 participants.

Requirements: Knowledge in Deep Learning, or solid background in Machine Learning. Implementation experience with TensorFlow or Pytorch is an advantage.

Interested? Please contact us for more details!

Contact

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