Accepted Manuscript

Deep Convolutional Neural Networks for Mental Load Classification based on EEG Data

Zhicheng Jiao , Xinbo Gao , Ying Wang , Jie Li , Haojun Xu

PII: S0031-3203(17)30487-9
DOI: 10.1016/j.patcog.2017.12.002
Reference: PR 6387

To appear in: *Pattern Recognition*

Received date: 11 September 2016
Revised date: 1 December 2017
Accepted date: 5 December 2017

Please cite this article as: Zhicheng Jiao , Xinbo Gao , Ying Wang , Jie Li , Haojun Xu , Deep Convolutional Neural Networks for Mental Load Classification based on EEG Data, *Pattern Recognition* (2017), doi: 10.1016/j.patcog.2017.12.002

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Highlights:

- Both single-channel and multi-channel CNN models are developed to obtain representation from spatial and temporal information of EEG data;
- A point-wise gated Boltzmann machines component is introduced to our models to improve performance of our CNN models;
- Both our independent and fused models achieve better performance on mental load classification task, and our models contain much less parameters which result in higher efficiency.

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/6939499

Download Persian Version:

https://daneshyari.com/article/6939499

Daneshyari.com