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Human Pulse Recognition based on Convolutional Neural Networks

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Human pulse recognition is an important part of the objective study of Traditional Chinese Medicine (TCM). In the current human pulse recognition methods, there are many feature extraction algorithms but many are complex and redundancy exists in the features selections. This paper focused on the typical convolutional neural network (CNN), and designed a 9-layer CNN which can be used to human wrist pulse signal classification. Feature extraction process is not necessary in the proposed method so the computing and the complexity are reduced. Experimental results show that the recognition rate can be 93.49%, which further verified the feasibility of our method.