

ABSTRACT

Thesis contains: 100 p., 7 tables, 26 fig., 2 add. and 28 references.

WEB APPLICATION, CONVOLUTIONAL NEURAL NETWORK, MACHINE LEARNING, IMAGE RECOGNITION.

Classification of art pieces is a complex process that might be affected by many factors. The purpose of this project is to create web application for paintings style recognition. To solve the problem of this matter convolutional neural networks are using based on more than 74 thousand labeled images for 42 styles of art. The object of the study is a dataset of images. The subject of the study is the convolutional neural network as a method of image recognition in machine learning. The relevance of the study is due to the demand for artificial image recognition systems. The result of this work serves exclusively cultural and educational purposes.

For further research it is advisable to adjust the parameters of the model, as well as to fragment the input dataset to obtain higher accuracy of style recognition. However, this requires the acquisition of greater computing power of used computer systems or remote server.