The thesis: 80 p., 22 fig., 2 appendixes, 17 sources.

We study the problem of recognition of text data from images using convolutional neural networks.

Done overview of various neural networks and optimization methods of neural networks in the case of recognition of text data from images secured rationale for using convolutional neural network. We consider several ways of segmenting the image processing algorithm cash the check before direct recognition, which increases the efficiency of the neural network.

The system is implemented using python programming language X ++ and software for integration with enterprise resource management system Axapta, are examples of applications for recognition of real images of checks. This system allows to download and save the image check, displays recognition result and recognized image, run multiple checks simultaneously, remove the checks from the system if necessary. Possible ways to further improve the system were described.

NEURAL NETWORK CONVOLUTIONAL NEURAL NETWORK, SEGMENTATION, OCR, METHOD CONNECTED COMPONENT