

ABSTRACT

The master's thesis: 72 p., 16 fig., 23 tabl., 2 appendices and 26 sources.

The theme of this thesis is “Intelligent system of photorealistic style transfer between images”.

Object of study: computer vision and style transfer techniques.

The purpose of this thesis is to develop system of photorealistic style transfer between images. Several methods of computer vision and style transfer were analyzed in the thesis.

The method of observation: a model that combines computer vision and deep learning techniques.

The results of the thesis:

- an algorithm for photorealistic style transfer between images was proposed;
- the proposed configuration was implemented for transferring sunny weather to the photo;
- an application with graphical user interface to demonstrate the system's work was developed.

The results of this thesis are recommended for use in the photoeditors and another applications for editing images. In further research it is reasonable to improve the faithfulness and increase the speed of image processing.

COMPUTER VISION, MACHINE LEARNING, IMAGE RECOGNITION, SEGMENTATION, DEEP CONVOLUTIONAL NEURAL NETWORK, PHOTOREALISTIC STYLE TRANSFER, SCREENED POISSON EQUATION.