

This thesis deals with the problem of automatic image generation based on input text in natural language. The first part deals with design and implementation of application that will generate an image composed of individual small pictures corresponding to the input description (an English sentence) based on certain rules, patterns and relations between words in the specified input sentence. The scope of objects for generating is infinite, because images are downloaded dynamically using REST API calls. The second goal is then to use this created application for training of a neural network for Image captioning task, i.e. automatic generation of captions for images, and evaluate its impact on quality of outputs from this task. The training was conducted on freely available data and it has been shown that artificial generating of images for training neural networks purposes has positive impact on the image captioning task.