

Review on Image Caption Generation

Aishwarya Mark¹, Sakshi Adokar², Vageshwari Pandit³, Rutuja Hambarde⁴, Prof. Swapnil Patil⁵

Students, Department of Computer Science and Engineering^{1,2,3,4}

Faculty, Department of Computer Science and Engineering⁵

SKN College of Engineering, Pune, Maharashtra, India

Abstract: *With the rapid development of Deep learning, AI along with Computer Vision and Natural Language processing Image caption has become an interesting and complex task. Image caption generation is the process of generating textual description of the given image and it is a challenging task because it consists of apprehension of objects. If the machine will be programmed to accurately describe an image or environment like human vision, it will be highly beneficial for robotic vision, business and many more. In order to generate an effective description of the image, the machine needs to detect, recognize objects as well as understand the scene type or location, object properties, their relationships and their interactions with each other. In this paper, we focus on advanced image captioning techniques such as CNN (Convolutional Neural Network)-LSTM(Long Short Term Memory) to generate meaningful captions. and the advantages and limitations of each method are discussed.*

Keywords: AI, Deep learning, CNN, LSTM

REFERENCES

- [1]. Philip Kinghorn, Li Zang, “a region based image caption generator with refined descriptions” , Elsevier B V, 6 july 2017, Ling Shao University Northumbria New castle NE1,United Kingdom.
- [2]. Priyanka Raut, Rushali A Deshmukh, “An Advanced Image Captioning using combination of CNN and LSTM”, Turkish Journal of Computer and Mathematics Education, 05 April 2021, Savitribai Phule Pune Univresity, faculty, Maharashtra/India.
- [3]. Shuang Liu, Liang Bai, Yanli Hu and Haoran Wang ,“Image Captioning Based on Deep Neural Networks”, MATEC Web of Conferences ,2018 ,College of Systems Engineering, National University of Defense Technology,410073 Changsha, China.
- [4]. Raj kadam , Uday Kumbhar , Onkar Gulik , Dr Makrand Shahade, “Object Detection and Automatic Image Captioning Using Tensorflow”, International Journal of Future Generation Communication and Networking2020, Scholar, Department Of Computer Engineering, JSPM’s RSCOE Pune.
- [5]. Priyanka Kalena , Aromal Nair,Nishi Malde, Saurabh Parkar “Visual Image Caption Generator Using Deep Learning”, ICAST-2019,K.J Somaiya College Of Engineering, Mumbai.