IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 4, May 2022
Impact Factor: 6.252

Sign Language Recognition using OpenCV

Amey Mete[1], Ambraj Yeldandi[2], Harshal Sable[3], Muskan Gavasekar[4], Prof. Sujay Pawar[5]
Students, Department of Information Technology[1,2,3,4]
Assistant Professor, Department of Information Technology[5]
Dr. D. Y. Patil Institute of Technology, Pune, Maharashtra, India

Abstract: *This paper focuses on experimenting with different segmentation approaches and unsupervised learning algorithms to create an accurate sign language recognition model. To more easily approach the problem and obtain reasonable results, we experimented with just up to 10 different classes in the our self-made dataset instead of all 26 possible letters. We collected more than 20 RGB images for each hand gesture and their corresponding depth data using SSD Mobile Net Model. Hand gesture is one of the method used in sign language for non-verbal communication. Various sign language systems has been developed by many makers around the world but they are neither flexible nor cost-effective for the end users.*

Keywords: Computer Vision, Object Detection, Desktop Application, Dataset

REFERENCES

[1]. Akash. ASL Alphabet. url: https://www.kaggle.com/grassknoted/asl-alphabet. (accessed: 24.10.2018).
[2]. https://docs.opencv.org/2.4/doc/tutorials/imgproc/gausian_median_blur_bilateral_filter/gausian_median_blur_bilateral_filter.html
[3]. The Cognitive, Psychological and Cultural Impact of Communication Barrier on Deaf Adults". In: Journal of Communication Disorders, Deaf Studies Hearing Aids 4 (2 2016). doi: 10.4172/2375-4427.1000164.
[4]. https://en.wikipedia.org/wiki/Convolutional_neural_network
[5]. https://en.wikipedia.org/wiki/TensorFlow
[6]. Farnaz D. Notash and ElaheElhamki. "Comparing loneliness, depression and stress in students with hearing impaired and normal students studying in secondary schools of Tabriz". In: International Journal of Humanities and Cultural Studies February 2016 Special Issue (2016). issn: 2356-5926.