



SIGN LANGUAGE TRANSLATOR

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ABSTRACT

Communication among deaf-mute people and normal people is more difficult because normal people cannot perceive the speculation and feeling of deaf-mute people.

So to ease this problem, we are going to develop an application with help of ML that converts sign language. This application will be based on an ML model that can recognize the different sign language gestures for accurate translation.

INTRODUCTION

There are different sign languages practiced in different countries. For example, India uses Indian Sign Language (ISL) while the USA uses American sign language (ASL). So, you first need to decide which type you wish to implement.

After gathering the datasets, prepare the ML model for training. There are many options for this such as TensorFlow, Kera's, PyTorch, Google's Teachable Machine etc. For this project, I am using Google's Teachable Machine, which is an online ML model creator service. Now, feed the datasets into your choice of ML model creator and capture the pictures of different hand gestures/signs with a camera. Remember to label them as per their meaning.

PROPOSED SYSTEM

The Proposed System Gives Two Way Communication System, first with Normal people to Deaf and Dumb people, Second with Deaf and Dumb people to Normal people. For implementation of this system we give audio as input so that audio matching using pattern matching techniques are used. The signs for corresponding audio matched will be displayed as output. Second, we require web camera is required for capturing the Sign gestures. Sign language gesture is recognized and showed the output in audio forms.

The background is a blue gradient. In the corners, there are decorative white lines resembling circuit traces or a stylized tree structure, with small circles at the end of the lines.

THANK
YOU