

SignBridge: Bridging Communication with Sign Language

Abstract:

In a world where communication is key, barriers faced by deaf and mute individuals can be significant. "SignBridge" is a pioneering project designed to bridge these communication gaps by converting spoken and written language into sign language videos. Leveraging advanced machine learning techniques, SignBridge transcribes audio input into text, which is then seamlessly translated into sign language using a curated dataset of animated videos.

The core of the project lies in its ability to provide real-time translation, making interactions with deaf and mute individuals more inclusive and accessible. This solution not only fosters better understanding but also empowers communities by ensuring that communication is no longer a barrier. SignBridge aims to be a versatile tool, applicable in various settings, from educational environments to customer service, ensuring that everyone, regardless of their hearing ability, can communicate effectively and meaningfully.

Keywords: Sign Language Translation, Deaf and Mute Communication, Audio-to-Text Conversion, Accessibility, Inclusive Communication

Team Members:

B.V. Venkat (21761A0507)

V. Soma Sundara Reddy (21761A0561)

A. Harshitha (21761A0519)

Project Guide:

Mrs. M. Gayathri

Assistant Professor

Dept of CSE