

Sign Language recognition system to text using Convolutional Neural Network (CNN)

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Abstract: The thesis focuses on solving the communication support problem for the hearing impaired by converting ASL sign language into text format. The author uses the MediaPipe framework to extract hand landmarks, which are then fed into a Convolutional Neural Network (CNN) model for character classification. This solution helps eliminate noise from complex background environments and focuses on the morphological features of the hand. Experimental results show that the system achieves high accuracy for static characters and opens up development directions for recognizing dynamic communication sentences in the future.

Keywords: Sign language recognition, MediaPipe, Convolutional Neural Network (CNN)

References

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