Anuvadak - ML-Enhanced Two-Way Communication for Deaf-Mute Individuals

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Abstract*: This paper explores the potential of Machine Learning (ML) to bridge the communication gap between deaf and mute individuals and those who communicate verbally expand more. We examine existing research on sign language recognition and speech synthesis, highlighting how ML algorithms can be leveraged to develop real-time, two-way communication systems. The paper discusses the technical aspects of such a system, including sign language recognition, speech generation, and user interface design. Additionally, it explores the benefits and challenges associated with ML-based communication tools for the DHH community*

Keywords: Machine Learning (ML), Speech Synthesis, Two-Way Communication, Mute, Deaf and Hard of Hearing

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[4] Deep Learning for Sign Language Generation: A Review (2023) by [Your Name(s)] (Hypothetical Citation) [This is a placeholder for your own future research paper, where you would detail the deep learning techniques used for sign language generation within your system]

[5] NLTK: Natural Language Toolkit (2000, ongoing) by Steven Bird, Ewan Klein, and Edward Loper NLTK is a popular open-source library for natural language processing tasks, potentially used for text pre-processing in your system: https://www.nltk.org/

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DOI: 10.48175/568

ISSN
2581-9429
IJARSCT

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