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Image to Audio Conversion to Aid Visually Impaired People by CNN

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Abstract

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Abstract:

This study suggests an innovative method for helping people who are blind or visually handicapped by turning visuals into sounds. In the proposed system, audio descriptions are produced in real-time together with significant features that are extracted from photos using deep learning algorithms. The proposed work is developed to be user-friendly, which includes a simple interface that aids blind individuals to easily capture and process images using a mobile device. A user research was undertaken to assess the efficiency of the suggested method, and the results were encouraging in terms of precision and usability. This initiative offers a promising technique to give people who are blind or visually impaired an alternate means of perceiving and interacting with their environment, therefore improving their quality of life. The suggested picture to audio converter system aims to overcome the drawbacks of current assistive devices that rely on braille or textual descriptions. Blind people can more easily interpret visual information that is necessary for daily life, such as recognising items, interpreting signs, or navigate unfamiliar situations, through offering audio descriptions of images. The system makes use of recent deep learning developments that have significantly improved picture identification as natural language processing. As a result, the suggested technique has the ability to offer audio descriptions that are more precise and comprehensive than current methods. This technology has the potential to be implemented into a variety of products, from cellphones to intelligent glasses, and could significantly improve the lives of people who are blind or visually impaired.

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