

Virtual Assistance for Visually Impaired

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Abstract: The purpose of the project is to develop a system/assistant that will assist a visually impaired person and communicate the person by speaking through the earpiece. As it has been noted from time to time that the way world is developing faster in terms of technology by creating the robot or AI's in replacement of human resource as much as it has it's negative impact it also has it's positive impact. In case of artificial intelligence where virtual assistance is created for aiding the people and mainly it helpful for special aided people in their day to day work such as recognizing a person or distinguishing an object, these tasks are straightforward for common people but can be very difficult for people that are visually impaired or visionless. The system will help the person to recognize people, add new faces and detect objects that are in their vicinity and their lives can be made smoother by assisting them to descry what is present in front of them at that instant. The aim of the project is to develop a mobile application that consist of numerous deep learning models that will help applications increase their administration. The primary working of the system will consist of the camera where it'll be continuously feeding the images for inputs, the core system processing this input information and the earpiece will act as the output device to provide this result to the user. This project applies the concept of Deep learning i.e. Neural networks. The system comprises a camera that acquires images and sends them to the application, where a powerful processor derives information from them and explains them to the user through a distinct audible message.

Keywords: Deep learning, Neural networks, core system

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