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HUMAN HAND DETECTION

Artificial intelligence is revolutionizing the way we detect and interpret hand gestures, enabling new forms of human-computer interaction."

HAND GESTURE DETECTION

APPLICATIONS

- Human-Computer Interaction: Hand gestures can be used as an input method for controlling devices, such as computers, smartphones, gaming consoles, etc.
- Virtual Reality: Hand gestures can be used to control virtual reality environments and provide a more immersive experience.
- Gaming: Hand gestures can be used as a gaming controller, providing a new way of interacting with games.
- Sign Language Recognition: Hand gestures can be used to recognize and translate sign language into text or speech.
- Medical Robotics: Hand gesture detection can be used to control surgical robots, allowing for more precise movements.

ALGORITHMS

- Conventional Computer Vision Techniques: These techniques use image processing techniques, such as thresholding, blob detection, and edge detection to detect hand gestures.



ABOUT PROJECT

HAND GESTURE DETECTION IS A COMPUTER VISION TECHNIQUE USED TO DETECT AND RECOGNIZE HAND GESTURES MADE BY A PERSON IN A GIVEN IMAGE OR VIDEO. THIS TECHNOLOGY IS WIDELY USED IN FIELDS SUCH AS GAMING, VIRTUAL REALITY, HUMAN-COMPUTER INTERACTION, AND SIGN LANGUAGE RECOGNITION. IT INVOLVES USING MACHINE LEARNING ALGORITHMS TO ANALYZE THE SHAPE, POSITION, AND MOVEMENT OF A PERSON'S HAND AND FINGERS IN REAL-TIME TO RECOGNIZE SPECIFIC GESTURES. THE ALGORITHMS CAN BE TRAINED USING LARGE DATASETS OF HAND GESTURES, ALLOWING THEM TO MAKE ACCURATE PREDICTIONS EVEN IN CHALLENGING CONDITIONS SUCH AS CHANGING LIGHTING OR PARTIAL OCCLUSIONS.

**FOR ADDITIONAL INFORMATION
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