

Video Based Face Mask Detection and Face Recognition using CNN, YOLO and Google Facenet

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Abstract: Globally Covid-19 has affected a large number of people. Covid-19 caused disruptions to many aspects of normal life. This also caused an increase in the death rate and Tension and Fear among the people. To avoid and overcome all these challenges WHO asked people to follow safety measures to avoid the spread of the virus. Wearing a mask is one of the safety measures among this. Mainly sometimes people gather at public places like offices, banks, airports, bus stops, etc. Considering this condition, we have designed a system that helps in mask detection in the various surveillance system at such places, also it helps in the face recognition of those people who have not worn the mask. Previous Systems were either only doing face recognition or face mask detection we came forward with this new approach by combining these two algorithms. All This is Possible by Using Artificial Intelligence which helps in Image Processing and Machine learning. Algorithms Like CNN, YOLO, and Google FaceNet were used for the same. Using this System, we got 97% Accuracy in Detecting a Face mask by using CNN. This System helps in classifying with mask and without mask person in the video and also help to identify the person who has not worn a mask which helps to send a notification to that person who violates the rule..

Keywords: Convolutional Neural Network, Artificial Intelligence, Machine Learning, you only look once

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