The lack of eye contact in video conference degrades the user’s experience. This problem has been known and studied for many years. There are hardware-based solutions to the eye gazing problem. However, these specialized systems are not generally accessible. This paper suggests a software approach that rectifies the face and the eyes in video conference, only utilizing one camera. In the setup phase, the view point, the head poses are calculated using 100 frames each from the front view and the above view, with the aids of face detection and eye detection algorithm. The weights of the artificial neural networks (ANN) are then trained. Once the setup is done, for each frame in real time, we apply ANN on the features found with the aid of face detection. The ANN outputs are feed to an image warping algorithm to rectify the face. Rectification of the eyes is done using image warping, based on an eye model. This is done in near real time (13 frames per second, for the resolution of 320x240). The result is not genuine but is better. However, the rectified face jerks when the user’s head moves or turns rapidly. The author shall need to investigate more on this issue.