Remote Scan & Recognition of Human's Signature

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The use of signature is one of the many ways to identify a person, and one the few using physical means. However, since the COVID-19 pandemic, physical contact for signature recording has been discouraged. As such, there was a will to change traditional method of signing to render them contactless. Studies has shown that tracking a finger in 3D space using computer vision and deep-learning algorithms such as Google's MediaPipe and MiDaS have proven to be quite effective but still lacking in performance. This studies however, presents an improvement in contactless means of identifying a person's signature which is independent of biometrics such as retina, facial or voice recognition.

To address these, an addition of a second camera is considered, with the aim of better estimation of the depth of the signature. Hence the use of two cameras would be employed. Also, the primary camera would be placed at an angle, and as one might not be drawing on the imaginary plane parallel to it, some transformations of the drawing are to be made to replace it relative to that plane.

Also, since previous algorithms had some trouble determining the interruption of one's signature. This work is expected to improve them in defining the start and the end of the signature.

Acknowledgements

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