Scan-Me: Transform your notes to High-Quality PDFs

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Motivation

Scanning of documents no longer requires the use of bulky devices and can be achieved leveraging the vast improvement in camera capabilities of mobiles in the last couple of years. We can now feed the image to software specialized to convert these into PDF documents. After ban of the most used application for this purpose (Cam-Scanner)[1], we came up with idea to develop our own software which has some additional functionalities too.

Goals

We aim to convert the input image to a target output file which will be a processed PDF after applying relevant image processing techniques such as Affine transformation, Gaussian Blur, Canny Edge detection[2], Contour detection ,Perspective transform, text alignment, Optical character recognition(if possible) along with other techniques. Our goal is reduce the manual effort to type the text already printed on a sheet/book/page and create PDFs of images which are clearer and neater as compared to standard camera quality.

Individual Deliverables

1. Neha - Initial Research and openCV
2. Arjun - Transforms and OCR
3. Aayush - Transforms and OCR

References

[1]https://www.news18.com/news/tech/google-removes-camscanner-malware-ridden-app-from-play-store-2289687.html

[2]P. Bao, Lei Zhang and Xiaolin Wu, "Canny edge detection enhancement by scale multiplication," in IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 27, no. 9, pp. 1485-1490, Sept. 2005.
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