[illegible]

Undecoder:
The de-blurrer of text

[illegible]

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Idea Graveyard

1. Translate Physical Objects into VR using video/images.
2. Speed/security cams license plate detection and enhancing.
3. Object Shape detection and extract texture

Purposes

- Access to blurred documentation/websites.
- Defeating Blur/Gaussian effect will help improve it.
- Encoding and decoding applications

Preprocessing

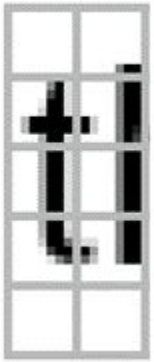
1. Create window with text
2. Capture the window at given offset and cropping via colored margins
3. Scale image to be a multiple of it’s pixel image blocksize, and convert to greyscale.

Image Warping

Scale the Image to be a multiple of it’s own pixel blocksize.

Blocksize^2 permutations to try, so find if any good guess is found for any letter at any offset at the start of the blurred text.

Nuances and Challenges



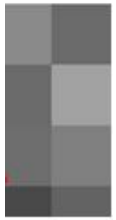
- Variable width
- White Space
- Pixelation offset
- Finding Start and End
- Rasterization
- Long runtimes

Assumptions

- The Pixelation is not a diffuse operation
- Always the same font, size, text renderer program
- Only 0,0 pixelation used to begin with for ours
- There is always a solution

Unforeseen issues

- Saving images/guesses to go back to them for comparisons.
- Opening a window and screenshotting with border in python.
- Shorter Bottom row averaging of pixels (therefore denser over smaller area) requires lightening the last row by respective difference from the blockSize, because it wasn’t a multiple.



Sources

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https://www.analyticsvidhya.com/blog/2021/12/computer-vision-to-detect-license-number-plate/