

Create a collage using Hybrid image

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The collage was obtained by following steps.

1. Read all the jpg, png and bmp images present in a folder.
2. Resize all the images to 500x500.
3. For horizontal merging, select a bounding box of size 50x500 (vertical) & for vertical merging select a bounding box of size 500x50 (horizontal).
4. After cropping out the bounding boxes for both the images, use Gaussian filter on both the bounding boxes. The size of the Gaussian filter is 5x5 and the sigma is 10.
5. After applying Gaussian filter on both the bounding boxes, merge them according to the relation $(1-\alpha) \cdot \text{area1} + (\alpha) \cdot \text{area2}$.
6. After merging the bounding boxes, concatenate them vertically or horizontally whichever is required.
7. Deciding whether to concatenate them horizontally or vertically is decided randomly.
8. After concatenating them resize the fused image back to 500x500 and apply the same procedure again.
9. This method works for any number of images.

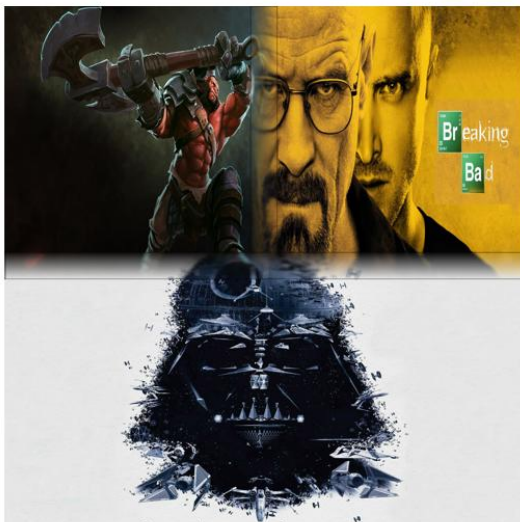


Figure 1: Collage of 3 images



Figure 2: Collage of 5 images



Figure 3: Collage of 5 images with different random orientation



Figure 4: Collage of 20 image