PERSUADING VISUAL ATTENTION THROUGH LOW-LEVEL IMAGE FEATURES

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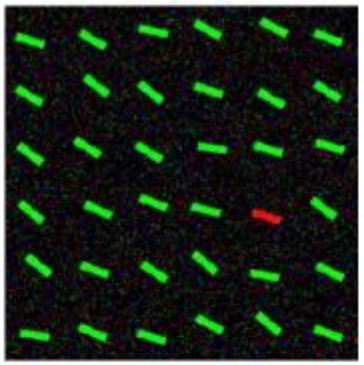
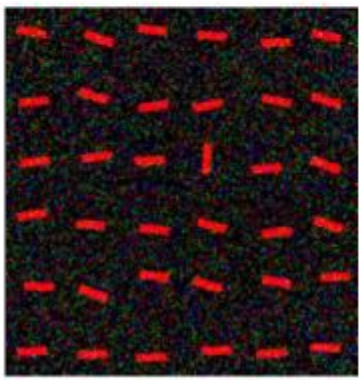
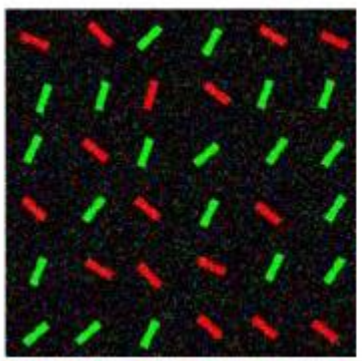
VISUAL SALIENCY IN ACTION



One item in many items strongly pops-out and immediately attracts attention. Hence this item is said to be salient.



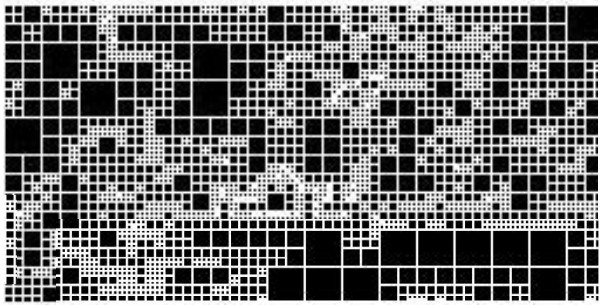
The vertical bar is visually salient. Though there are other bars which are salient too but they are less salient. **Can You Spot Them?**



There is again one bar that is different and unique but one's find it difficult to find it because it is not that salient.

COMPUTING SALIENCY

Qtdecomp( )



Original Image

Image After qtdecomp

- A graph based approach based on degree centrality is used to calculate the saliency.
- A network where nodes represent similar pixels and the dissimilarity in terms of features between any pair of such accumulations is encoded as edge-weight between corresponding nodes.
- The homogeneity across a block of pixels in terms of a feature is determined by estimating the difference between maximum and minimum feature values with in the block .
- If the difference between the max and min feature value is more then the threshold and then the block is not homogenous and is further decomposed.
- Thus each block above represent a node in the graph

CONT…

- Difference between their feature value is calculated

$$\Delta fvalue = fvalue(\textbf{salient node}) - fvalue(\textbf{node to be made salient})$$

- Use this difference to increase the feature value of the node to be made salient

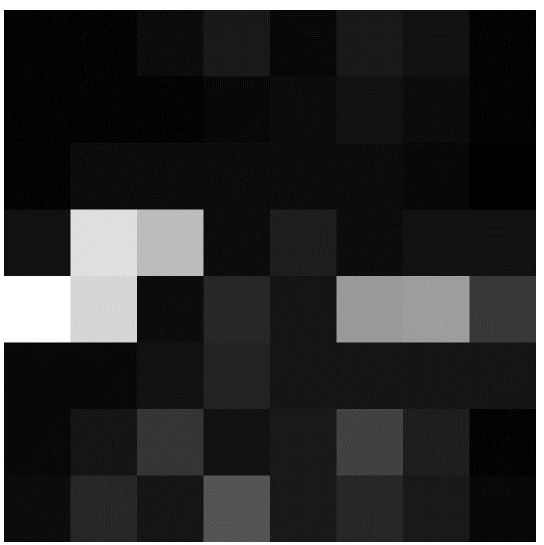


IMAGE	SALIENCY MAP	MODIFIED IMAGE