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1 This algorithm makes edges appear white.

Algorithm 1 Edge Detection

Require:

the height of the image, $0 \leq h$

the width of the image, $0 \leq w$

the source image, image

```
1: procedure EDGEDETECT(image)
2:   for all  $y$  in  $h$  do
3:     for all  $x$  in  $w$  do
4:        $p_h \leftarrow \text{pixel}(x, y)$ 
5:        $t_h \leftarrow \sum_{i=0}^3 p_{hi}$ 
6:        $p_r \leftarrow \text{pixel}(x+1, y)$ 
7:        $t_r \leftarrow \sum_{i=0}^3 d_{ri}$ 
8:        $p_d \leftarrow \text{pixel}(x, y+1)$ 
9:        $t_d \leftarrow \sum_{i=0}^3 d_{di}$ 
10:
11:       if  $\text{abs}(t_h - t_d) > 20$  and  $\text{abs}(t_h - t_r) > 20$  then
12:          $\text{setPixel}(x, y, 255, 255, 255)$ 
13:       else
14:          $\text{setPixel}(x, y, 0, 0, 0)$ 
15:       end if
16:     end for
17:   end for
18: end procedure
```
