2023 Digital IC Design Homework 5

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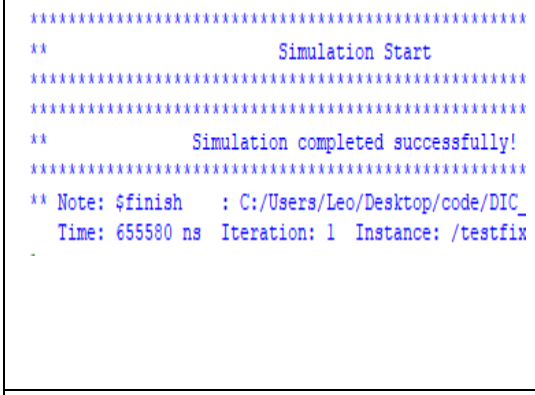
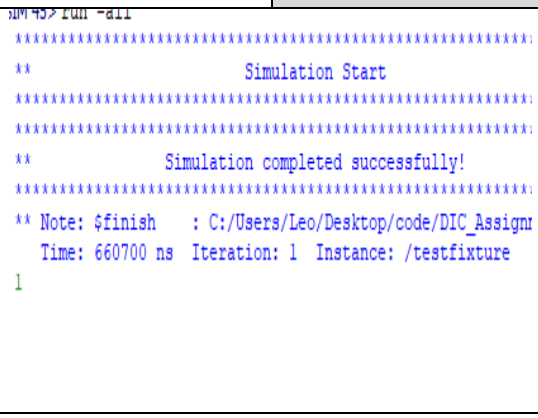
Simulation Result

Functional simulation	Completed	Gate-level simulation	Completed



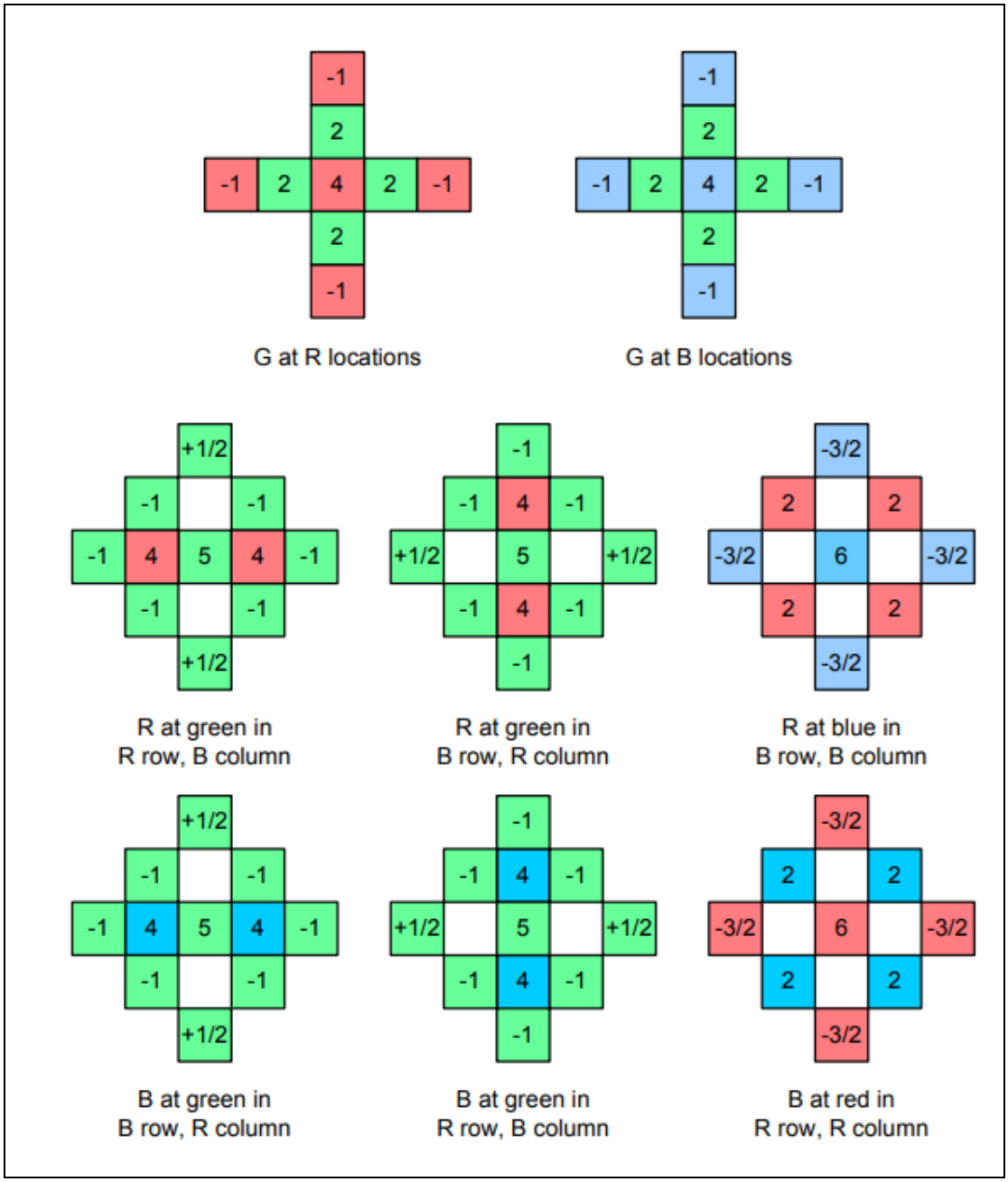


Evaluation Results

test1.png	31.21	test2.png	31.9
test3.png	34.82	test4.png	26.79
test5.png	29.56	test6.png	32.75

Description of your design

The method I use is referenced from the paper which title is “HIGH-QUALITY LINEAR INTERPOLATION FOR DEMOSAICING OF BAYER-PATTERNED COLOR IMAGES”. There will be different weights corresponding to the RGB channel that interpolate target channel value. The weight could refer to the following figure: Each value in the line buffer need to multiply their weights and the final result should divided by 8.



Scoring = average PSNR of the six test images

*** PSNR of all interpolation results should meet at least the baseline.**