

Benchmark	Docker	Native	Windows	Ubuntu	macOS
Brightness Randomization	W (28.84 ms) > M (28.17 ms) & U (26.83 ms)*	W (56.23 ms) > M (35.51 ms) > U (27.91 ms)****	N > D****	N > D**	N > D****
Compute Canny	W (16.57 ms) > U (12.85 ms) > M (11.83 ms)***	W (18.60 ms) > U (12.70 ms) > M (10.75 ms)****	N > D*	no sig. diff.	D > N****
Compute Histogram	W (0.89 ms) > U (0.51 ms) > M (0.27 ms)****	U (0.71 ms) > W (0.54 ms) > M (0.27 ms)****	D > N****	N > D****	no sig. diff.
Contour	W (2.20 ms) > M (1.91 ms) & U (1.97 ms)****	W (3.37 ms) > U (2.03 ms) > M (1.60 ms)****	N > D****	no sig. diff.	D > N****
Contrast Randomization	M (0.91 ms) > U (0.81 ms) > W (0.79 ms)**	W (2.46 ms) > M (0.86 ms) > U (0.82 ms)**	N > D****	N > D*	D > N***
Gaussian Blur	W (0.87 ms) > U (0.72 ms) > M (0.42 ms)****	W (0.83 ms) > U (0.72 ms) > M (0.38 ms)****	no sig. diff.	no sig. diff.	no sig. diff.
Good Features	no sig. diffs.	W (42.40 ms) > U (27.11 ms) > M (22.95 ms)****	N > D****	N > D*	D > N****
Gradient Sobel	M (2.07 ms) > W (1.84 ms) > U (1.54 ms)****	W (4.08 ms) > U (1.73 ms) > M (1.50 ms)****	N > D****	N > D****	D > N****
Hough Lines	W (86.47 ms) > U (75.79 ms) > M (44.73 ms)****	W (29.37 ms) > U (27.56 ms) > M (20.82 ms)***	D > N****	D > N****	D > N****
Load Image	W (30.46 ms) > M (25.58 ms) > U (19.57 ms)****	W (21.95 ms) > U (21.95 ms) > M (17.00 ms)*	D > N****	N > D****	D > N****
Mean Thresholding	W (2.35 ms) > M (1.97 ms) & U (1.99 ms)****	W (2.50 ms) > U (1.71 ms) > M (1.56 ms)****	no sig. diff.	D > N****	N > D****
Mirror	W (0.39 ms) & U (0.32 ms) > M (0.29 ms)****	W (1.16 ms) > U (1.07 ms) > M (0.26 ms)****	N > D****	N > D****	D > N****
Resize	W (1.15 ms) > U (1.02 ms) > M (0.80 ms)***	W (1.17 ms) > U (1.04 ms) > M (0.47 ms)****	no sig. diff.	no sig. diff.	D > N****
Rotate	W (0.86 ms) & M (0.84 ms) > U (0.76 ms)**	W (1.09 ms) > U (1.08 ms) > M (0.58 ms)****	N > D***	N > D****	D > N****
SIFT	W (350.30 ms) > U (265.91 ms) > M (245.63 ms)**	W (326.29 ms) > U (303.61 ms) > M (233.44 ms)****	D > N*	N > D****	no sig. diff.
SURF	W (616.29 ms) > U (446.17 ms) > M (202.83 ms)****	W (500.49 ms) > U (416.53 ms) > M (159.20 ms)****	D > N****	D > N**	D > N****

Table 1: *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$; ****: $p < 0.0001$. Note for readability, all OSs and conditions have been abbreviated: W, M, and U, refer to Windows, macOS, and Ubuntu, respectively, and N and D refer to Native and Docker. When specifying the order, we only use comparisons that have significant differences.