

| feature | akaze | brisk | cuda_sift | orb | sift | surf |
|------------|-------------------------------|------------------------|-------------------------|--------------------------------|-------------------------|-------------------------|
| ball | 0.98/ 0.77 /0.16 | 0.99 /0.53/0.15 | 0.95/0.64/0.16 | 0.96/0.4/0.12 | 0.95/0.51/0.11 | 0.83/0.65/ 0.19 |
| basketball | 0.14/0.1/0.04 | 0.03/0.03/0.02 | 0.05/0.05/0.01 | 0.03/0.02/0.01 | 0.03/0.03/0.01 | 0.03/0.02/0.02 |
| bicycle | 0.51/0.49/0.25 | 0.64/0.61/0.33 | 0.64/0.61/0.28 | 0.64/0.57/0.26 | 0.64/0.6/0.3 | 0.3/0.28/0.11 |
| board | 0.91/ 0.87 /0.22 | 0.95 /0.86/0.22 | 0.93/0.86/0.18 | 0.85/0.83/0.18 | 0.87/0.83/ 0.23 | 0.87/0.86/0.21 |
| bolt | 0.03/0.01/0.0 | 0.03/0.01/0.0 | 0.02/0.01/0.0 | 0.03/0.01/0.0 | 0.03/0.01/0.0 | 0.03/0.01/0.0 |
| box | 0.94/0.88/0.66 | 0.95/0.89/ 0.72 | 0.96/0.92 /0.62 | 0.91/0.87/0.69 | 0.87/0.82/0.55 | 0.83/0.8/0.57 |
| car | 0.62/0.62/0.45 | 0.64/0.63 /0.32 | 0.64/0.63/0.51 | 0.64/0.63/ 0.59 | 0.64/0.63/0.2 | 0.52/0.35/0.12 |
| car 2 | 0.87/0.87 /0.54 | 0.86/0.85/0.58 | 0.65/0.65/0.52 | 0.87/0.86/0.63 | 0.86/0.86/0.63 | 0.87/0.87/ 0.65 |
| carchase | 0.2/0.14/0.05 | 0.4/0.36/0.14 | 0.4/ 0.37 /0.12 | 0.41 /0.37/ 0.16 | 0.39/0.36/0.15 | 0.14/0.14/0.08 |
| cup | 0.96/0.84/0.64 | 1.0/1.0 /0.68 | 1.0/1.0/0.66 | 1.0/1.0/ 0.69 | 0.94/0.93/0.65 | 0.65/0.65/0.64 |
| david | 0.05/0.05/0.03 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 |
| diving | 0.15/0.13/0.07 | 0.28 /0.13/0.07 | 0.16/0.13/0.07 | 0.19/0.13/0.07 | 0.18/ 0.14/0.08 | 0.18/0.14/0.08 |
| dog | 1.0/1.0 /0.83 | 1.0/1.0/0.84 | 1.0/1.0/0.83 | 1.0/1.0/ 0.87 | 0.96/0.95/0.81 | 1.0/0.99/0.72 |
| drunk | 0.19/ 0.19 /0.05 | 0.04/0.04/0.02 | 0.11/0.03/0.01 | 0.2 /0.1/0.02 | 0.11/0.1/ 0.06 | 0.08/0.08/0.04 |
| fernando | 0.19/0.16/0.02 | 0.19/0.12/0.02 | 0.18/0.05/0.02 | 0.19/0.14/0.02 | 0.17/0.08/0.02 | 0.14/0.05/0.02 |
| fish1 | 0.04/0.01/ 0.0 | 0.05/0.01/0.0 | 0.05/ 0.02 /0.0 | 0.06 /0.01/0.0 | 0.06/0.01/0.0 | 0.05/0.01/0.0 |
| fish2 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 | 0.0/0.0/0.0 |
| gym | 1.0/0.96/0.2 | 1.0/0.89/0.14 | 0.58/0.51/0.1 | 1.0/0.69/0.15 | 0.96/0.77/0.13 | 0.29/0.26/0.09 |
| gymnastics | 0.44/0.4/ 0.36 | 0.45/0.42/0.35 | 0.44/0.42/0.36 | 0.45/0.42/0.36 | 0.55 /0.43/0.35 | 0.46/ 0.44 /0.35 |
| hand1 | 0.33/0.26/0.05 | 0.19/0.08/0.03 | 0.17/0.1/0.03 | 0.22/0.12/0.03 | 0.19/0.09/0.04 | 0.1/0.09/0.04 |
| hand2 | 0.13/0.08/ 0.04 | 0.2/0.08/0.04 | 0.11/0.06/0.04 | 0.23/0.09 /0.04 | 0.16/0.06/0.04 | 0.11/0.06/0.04 |
| jogging | 0.91/0.77 /0.13 | 0.64/0.61/ 0.22 | 0.67/0.51/0.16 | 0.75/0.51/0.12 | 0.25/0.24/0.09 | 0.51/0.43/0.07 |
| juice | 1.0/1.0/1.0 | 1.0/1.0/1.0 | 1.0/1.0/1.0 | 1.0/1.0/1.0 | 1.0/1.0/1.0 | 1.0/1.0/1.0 |
| jumping | 0.74/0.64/0.23 | 0.99/0.94/ 0.5 | 0.93/0.9/0.5 | 1.0/0.95 /0.39 | 0.49/0.41/0.17 | 0.11/0.11/0.1 |
| lemming | 0.17/0.14/0.04 | 0.6/0.58/0.3 | 0.49/0.48/0.3 | 0.66/0.62/0.32 | 0.55/0.52/0.27 | 0.13/0.12/0.08 |
| liquor | 0.93/0.91/0.75 | 0.94/0.93 /0.75 | 0.93/0.92/ 0.76 | 0.9/0.89/0.74 | 0.91/0.9/0.74 | 0.88/0.87/0.73 |
| motocross | 0.36/0.21/ 0.0 | 0.37/0.18/0.0 | 0.42/0.2/0.0 | 0.54/0.31 /0.0 | 0.42/0.23/0.0 | 0.29/0.21/0.0 |
| mbk | 1.0 /0.98/0.3 | 1.0/ 1.0 /0.29 | 1.0/1.0/0.35 | 1.0/1.0/0.35 | 1.0/1.0/ 0.44 | 1.0/1.0/0.31 |
| person | 0.98 /0.9/ 0.56 | 0.94/0.82/0.45 | 0.98/0.91/0.48 | 0.92/0.76/0.41 | 0.98/ 0.93 /0.47 | 0.85/0.81/0.51 |
| person-crg | 0.8/0.74/0.63 | 0.79/0.75/0.65 | 0.84/0.79/0.7 | 0.76/0.68/0.51 | 0.83/0.73/0.59 | 0.78/0.73/0.61 |
| person-occ | 1.0/0.96/0.82 | 1.0/0.95/0.82 | 1.0/0.95/0.82 | 1.0/0.95/0.82 | 1.0/0.95/0.81 | 1.0/0.95/0.82 |
| polarbear | 1.0/0.65/0.32 | 0.44/0.41/0.17 | 0.0/0.0/0.0 | 0.45/0.44/0.23 | 0.44/0.38/0.12 | 0.0/0.0/0.0 |
| singer | 1.0 /0.91/0.3 | 1.0/0.83/0.33 | 1.0/ 0.94 /0.31 | 1.0/0.9/ 0.39 | 1.0/0.9/0.34 | 0.59/0.58/0.37 |
| skating | 0.19/0.14/0.02 | 0.7 /0.26/0.03 | 0.3/0.27/0.03 | 0.56/ 0.41/0.04 | 0.27/0.19/0.02 | 0.12/0.1/0.02 |
| sphere | 1.0/1.0/0.54 | 0.18/0.18/0.13 | 0.21/0.21/0.2 | 0.6/0.27/0.2 | 0.2/0.18/0.15 | 0.18/0.18/0.15 |
| sunshade | 0.77/0.42/0.1 | 0.92/0.43/0.16 | 0.94/0.4/0.2 | 0.88/0.41/0.15 | 0.96/0.63/0.22 | 0.49/0.19/0.05 |
| surfing | 1.0 /0.96/0.51 | 1.0/0.92/0.56 | 1.0/0.93/ 0.57 | 1.0/ 0.99 /0.46 | 1.0/0.97/0.27 | 0.04/0.04/0.04 |
| sylvester | 0.91/0.85/0.4 | 0.97/0.92/ 0.54 | 0.96/ 0.95 /0.52 | 1.0 /0.88/0.43 | 0.99/0.92/0.43 | 0.64/0.62/0.41 |
| torus | 0.33/0.13/0.05 | 0.26/0.11/0.04 | 0.18/0.06/0.05 | 0.32/0.06/0.05 | 0.25/0.06/0.05 | 0.09/0.06/0.05 |
| track | 0.79/0.79/0.74 | 0.79/0.77/0.61 | 0.79/0.79/0.74 | 0.75/0.74/0.54 | 0.79/0.79/0.69 | 0.29/0.29/0.25 |
| trellis | 0.31/0.3/0.21 | 0.19/0.16/0.05 | 0.11/0.08/0.02 | 0.16/0.12/0.04 | 0.17/0.15/0.04 | 0.2/0.2/0.14 |
| tunnel | 0.2/0.13 /0.02 | 0.18/0.09/0.02 | 0.11/0.1/0.04 | 0.2/0.13/0.02 | 0.18/0.12/0.02 | 0.14/0.11/ 0.05 |
| woman | 0.22/0.18/0.09 | 0.19/0.11/0.06 | 0.34/ 0.25/0.13 | 0.4 /0.23/0.06 | 0.15/0.12/0.07 | 0.11/0.09/0.04 |
| overall | 0.59/ 0.52/0.29 | 0.58/0.5/0.29 | 0.54/0.48/0.29 | 0.6 /0.5/0.28 | 0.54/0.48/0.26 | 0.39/0.36/0.23 |