| data_ears                |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|--------------------------|-----------------------|--------------------|------------------------|-----------------------------------|--------------------------|----------------------|------------------|---------------|---------------------------|--------------------------|-------------------|--------------------------------|---------------|--------------------------------|---|
| Jensen-Shannon           | Pix2Pix               | Pi                 | ix2Pix + Sobel LB      | P raw                             | LBP raw + Sobel          | LBP_0                | LBP_1            | LBP_0 + Sobel | LBP_1 + Sobel             | Hog_0                    | Hog_1             | Hog_0 + Sobel                  | Hog_1 + Sobel |                                |   |
| Rank1                    |                       | 15.4               | 25                     | 13.5                              | 11.9                     | 25.9                 | 15               | 28.5          | 13                        | 41.5                     | 34.               | 1 40.3                         | 32.6          |                                |   |
| Rank5                    |                       | 31.5               | 43.9                   | 26.4                              | 21.7                     | 45.7                 | 31.5             | 47.1          | 30.1                      | 61.4                     | 55.8              | 61.8                           | 54.2          |                                |   |
| Rank10                   |                       | 41.4               | 53.4                   | 38                                | 30.2                     | 56.1                 | 43.2             | 56.9          | 41.5                      | 70                       | 65.6              | 70.7                           | 65.8          |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| Cosine                   | Pix2Pix               | Pi                 | ix2Pix + Sobel LB      | P raw                             | LBP raw + Sobel          | LBP_0                | LBP_1            | LBP_0 + Sobel | LBP_1 + Sobel             | Hog_0                    | Hog_1             | Hog_0 + Sobel                  | Hog_1 + Sobel |                                |   |
| Rank1                    |                       | 17.9               | 21.5                   | 16.2                              | 14.1                     | 26                   | 12.7             | 26            | 12.1                      | 36.7                     | 35.8              | 32.9                           | 32.4          |                                |   |
| Rank5                    |                       | 31.7               | 41.2                   | 31.7                              | 26.4                     | 45.6                 | 29.6             | 44.6          | 26.8                      | 58.7                     | 56.8              | 53.6                           | 56.5          |                                |   |
| Rank10                   |                       | 42.5               | 51.9                   | 41.6                              | 34.8                     | 57.4                 | 40.5             | 54            | 36.7                      | 66.2                     | 68.6              | 63.6                           | 65.5          |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| data_yolo                |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| Jensen-Shannon           | Pix2Pix               | Pi                 | ix2Pix + Sobel LB      | P raw                             | LBP raw + Sobel          | LBP_0                | LBP_1            | LBP_0 + Sobel | LBP_1 + Sobel             | Hog 0                    | Hog_1             | Hog 0 + Sobel                  | Hog_1 + Sobel |                                |   |
| Rank1                    |                       | 10.47              | 11.68                  | 9.26                              |                          | 14.7                 | 13.8             |               | 10.88                     | 29                       |                   |                                |               |                                |   |
| Rank5                    |                       | 23.97              | 26.59                  | 20.14                             |                          | 30.21                | 30.11            | 32.12         | 26.08                     | 49.45                    |                   |                                |               |                                |   |
| Rank10                   |                       | 33.43              | 35.35                  | 27.59                             | 17.22                    | 40.68                | 41.39            | 41.99         | 34.04                     | 59.32                    |                   |                                |               |                                |   |
| I dilk io                |                       | 33.43              | 33.33                  | 21.55                             | 17.22                    | 40.00                | 41.55            | 41.00         | 54.04                     | 33.32                    | 32.0              | 30.21                          | 34.20         |                                |   |
| Cosine                   | Pix2Pix               | Di                 | ix2Pix + Sobel LB      | P raw                             | LBP raw + Sobel          | LBP_0                | LBP_1            | LBP_0 + Sobel | LBP_1 + Sobel             | Hog 0                    | Hog_1             | Hog 0 + Cobol                  | Hog_1 + Sobel |                                |   |
|                          | FIXZFIX               |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| Rank1                    |                       | 11.38              | 11.78                  | 10.07                             | 4.23                     | 14.2                 |                  | 13.49         | 9.67                      | 25.78                    | 23.50             |                                |               |                                |   |
| Rank5                    |                       | 25.28              | 24.47<br>33.13         | 21.65                             |                          | 30.11                | 27.59            | 28.4          | 22.66<br>31.92            | 43.4                     | 43.8              |                                |               |                                |   |
| Rank10                   |                       | 33.64              | 33.13                  | 29.71                             | 20.24                    | 40.58                | 36.66            | 40.79         | 31.92                     | 51.87                    | 53.2              | 7 51.16                        | 56.19         |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| Pix2Pix -> Output = (409 |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| BP raw -> (points = 8, r |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| _BP_0 -> (points = 8, ra |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| .BP_1 -> (points = 8, ra |                       |                    |                        |                                   |                          | ,)                   |                  |               |                           |                          |                   |                                |               |                                |   |
| log_0 -> (orientations=  |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| log_1 -> (orientations=  |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| data_ears                |                       |                    |                        |                                   |                          |                      |                  | data ears     |                           |                          |                   |                                |               |                                |   |
| data_barb                |                       |                    |                        |                                   |                          |                      |                  | data_oaro     |                           |                          |                   |                                |               |                                |   |
| -                        |                       |                    | Rank1 Rar              | nk5 📒 Rank                        | 10                       |                      |                  |               |                           | Ran                      | k1 Rank5          | Rank10                         |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| 80                       |                       |                    |                        |                                   |                          |                      |                  | 80            |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| 60                       |                       |                    |                        |                                   | _                        | _                    |                  | 60            |                           |                          |                   |                                |               |                                |   |
| 00                       |                       |                    | _                      | _                                 |                          |                      |                  | 60            |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    | _                      |                                   |                          |                      |                  |               |                           | _                        |                   | _                              |               |                                |   |
| 40                       | _                     |                    |                        | _                                 |                          |                      | _                | 40            | _                         |                          |                   |                                |               |                                |   |
| _                        |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        | _                                 |                          |                      |                  |               |                           |                          | _                 |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| 20                       |                       |                    |                        |                                   |                          |                      |                  | 20            |                           |                          |                   |                                |               |                                |   |
|                          | _                     |                    |                        | _                                 |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| 0 Pix2Pix P              | Pix2Pix+ LBP          | raw IBP            | raw LBP 0 LBP 1        | LBP 0+ LB                         | P_1 + Hog_0 Hog_         | 1 Hog_0+             | Hog 1+           | 0 Pix2Pix     | Pix2Pix + LBP raw         | LBP raw LBP              | 0 IBP 1 IB        | P 0 + LBP 1 +                  | Hog_0 Hog_1   | Hog_0 + Hog_1 +                |   |
|                          | Sobel                 | + Sol              | bel                    | Sobel S                           | obel                     | Sobel                | Sobel            | I MALI IX     | Sobel                     | + Sobel                  | E                 | obel Sobel                     |               | Sobel Sobel                    |   |
| -                        |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| -                        |                       |                    | Jensen-                | -Shannon                          |                          |                      |                  |               |                           |                          | Cosine            |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| data_yolo                |                       |                    |                        |                                   |                          |                      |                  | data_yolo     | )                         |                          |                   |                                |               |                                |   |
| aata_yolo                |                       |                    |                        |                                   |                          |                      |                  | Janu_yord     | -                         |                          |                   |                                |               |                                |   |
|                          |                       |                    | Rank1 📕 Rar            | nk5 🧧 Rank                        | 10                       |                      |                  |               |                           | ■ F                      | tank1 📕 Rank      | 5 Rank10                       |               |                                |   |
| 1                        |                       |                    | _                      |                                   |                          |                      |                  | 1             |                           | _                        |                   |                                |               |                                |   |
| 60                       |                       |                    |                        |                                   | _                        | _                    |                  | 60            |                           |                          |                   |                                |               |                                | - |
|                          |                       |                    |                        |                                   |                          |                      | _                |               |                           |                          |                   |                                | _             |                                |   |
| -                        |                       |                    |                        |                                   |                          |                      |                  | H             |                           |                          |                   |                                |               |                                |   |
| -                        |                       |                    |                        |                                   |                          |                      |                  | H             |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        | _                                 |                          |                      |                  | H             |                           |                          |                   |                                |               |                                |   |
| 40                       |                       |                    |                        |                                   |                          |                      |                  | 40            |                           |                          |                   |                                |               |                                | - |
| _                        |                       |                    |                        |                                   | _                        |                      |                  | _             | _                         |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           | _                        |                   |                                |               |                                |   |
| 1                        |                       |                    |                        |                                   |                          |                      |                  | Π _           |                           |                          |                   |                                |               |                                |   |
| T                        |                       |                    |                        |                                   |                          |                      |                  | T 📙           |                           |                          |                   |                                |               |                                |   |
| 20                       |                       |                    |                        |                                   |                          |                      |                  | 20            |                           |                          |                   |                                |               |                                | - |
| - 1                      |                       |                    |                        |                                   |                          |                      |                  | H             |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        | _                                 |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
|                          |                       |                    |                        |                                   |                          |                      |                  |               |                           |                          |                   |                                |               |                                |   |
| 0 BivOBiv B              |                       |                    |                        |                                   |                          |                      |                  | 0             |                           |                          |                   |                                |               |                                |   |
|                          | Div2Div + I DD        | raw IDD -          |                        | IRD 0 + 10                        | P 1 + Hoc 0 P            | 1 Hop 0 -            | Hog 1+           | DI-ODI-       | Div2Div + 1 DD -          | aw IRD room 15           | SD U I DD 4       | IRP 0+ 100 4 -                 | Hon O Hon 4   | Hon O+ Hon 4:                  |   |
| 1 1021 101               | Pix2Pix+ LBP<br>Sobel | raw LBP i<br>+ Sol | raw LBP_0 LBP_1<br>bel | LBP_0 + LB<br>Sobel S             | P_1+ Hog_0 Hog_<br>obel  | 1 Hog_0 + I<br>Sobel | Hog_1 +<br>Sobel | Pix2Pi        | Pix2Pix + LBP r<br>Sobel  | aw LBP raw LE<br>+ Sobel | BP_0 LBP_1        | LBP_0 + LBP_1 +<br>Sobel Sobel | Hog_0 Hog_1   | Hog_0 + Hog_1 +<br>Sobel Sobel |   |
| -                        | Pix2Pix+ LBP<br>Sobel | raw LBP i<br>+ Sol | bel                    | Sobel S                           | P_1+ Hog_0 Hog_<br>obel  | 1 Hog_0+<br>Sobel    | Hog_1 +<br>Sobel | Pix2Pi        | Pix2Pix + LBP r<br>Sobel  | aw LBP raw LE<br>+ Sobel |                   | Sobel Sobel                    | Hog_0 Hog_1   | Hog_0 + Hog_1 +<br>Sobel Sobel |   |
|                          | Pix2Pix+ LBP<br>Sobel | raw LBP i<br>+ Sol | bel                    | LBP_0 + LB<br>Sobel S<br>-Shannon | P_1+ Hog_0 Hog_<br>obel  | 1 Hog_0+<br>Sobel    | Hog_1 +<br>Sobel | Pix2Pi        | × Pix2Pix+ LBP r<br>Sobel | aw LBP raw LE<br>+ Sobel | BP_0 LBP_1<br>Cos | Sobel Sobel                    | Hog_0 Hog_1   | Hog_0 + Hog_1 +<br>Sobel Sobel |   |
|                          | Pix2Pix+ LBP<br>Sobel | raw LBP i          | bel                    | Sobel S                           | P_1 + Hog_0 Hog_<br>obel | 1 Hog_0+<br>Sobel    | Hog_1 +<br>Sobel | Pix2Pi:       | × Pix2Pix+ LBP r<br>Sobel | aw LBP raw LE<br>+ Sobel |                   | Sobel Sobel                    | Hog_0 Hog_1   | Hog_0 + Hog_1 +<br>Sobel Sobel |   |