|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type | model | ClinicDB | | | | | | | Kavsir | | | | | | |
| mAP@50 | AP | | | Recall | | | mAP@50 | AP | | | Recall | | |
| Flat | Pedicle | Edge | Flat | Pedicle | Edge | Flat | Pedicle | Edge | Flat | Pedicle | Edge |
| Fully  Supervised | Faster Rcnn | 41.77 | 78.8 | 46.5 | 0.0 | 89.66 | 40.0 | 0.0 | 25.3 | **75.0** | 0.0 | 0.0 | **86.13** | 0.0 | 0.0 |
| Yolo | 42.67 | 76.2 | 51.8 | 0.0 | 50.0 | 7.69 | 0.0 | 26.07 | 72.2 | 6.0 | 0.0 | 43.93 | 0.0 | 0.0 |
| DiffusionDet50 | **59.27** | 93.7 | **84.1** | 0.0 | 91.38 | 71.43 | 0.0 | 25.53 | 70.5 | 6.1 | 0.0 | 50.86 | 0.0 | 0.0 |
| DiffusionDet500 | 55.8 | 92.8 | 74.6 | 0.0 | 82.76 | 50.0 | 0.0 | **30.1** | 76.8 | 13.5 | 0.0 | 56.65 | 0.0 | 0.0 |
| Weakly  Supervised | WSDDN | 6.57 | 7.12 | 11.16 | 1.42 | 92.45 | 72.82 | 71.49 | 3.68 | 0.3 | 10.73 | 0.0 | 61.43 | 52.24 | 0.61 |
| Grad-CAM | 3.94 | 0.12 | 11.70 | 0.0 | 0.0 | 95.45 | 95.0 | 0.75 | 0.0 | 2.25 | 0.0 | 0.0 | 50.0 | 67.97 |
| Grad-CAM++ | 4.44 | 0.05 | 10.92 | 2.37 | 0.0 | 96.0 | **95.31** | 0.93 | 0.01 | 2.78 | 0.0 | 0.0 | 54.87 | **73.36** |
| Ours | 20.72 | **48.64** | 6.66 | **6.84** | **94.94** | **100** | 62.07 | 8.92 | 7.87 | **18.89** | 0.0 | 41.38 | **82.98** | 0.0 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Private | | | | | | | | |
| Type | model | mAP@50 | AP | | | Recall | | |
| Flat | Pedicle | Edge | Flat | Pedicle | Edge |
| Fully  Supervised | Faster Rcnn | 29.10 | **87.3** | 0.0 | 0.0 | **90.9** | 0.0 | 0.0 |
| Yolo | 21.77 | 63 | 2.3 | 0.0 | 48.5 | 0.0 | 0.0 |
| DiffusionDet50 | 30.8 | 66.1 | 26.3 | 0.0 | 57.1 | 8.09 | 0.0 |
| DiffusionDet500 | 29.87 | 67.1 | 22.5 | 0.0 | 78.79 | 16.67 | 0.0 |
| Weakly  Supervised | WSDDN | 9.15 | 1.34 | 17.09 | 9.02 | 81.1 | 36.27 | 23.4 |
| OICR | 3.37 | 9.1 | 1.0 | 0.0 | 7.1 | 9.1 | 0.0 |
| WSOD2 | 0.76 | 0.0 | 2.3 | 0.0 | 0.0 | 3.0 | 0.0 |
| Grad-CAM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 81.48 | 55.74 |
| Grad-CAM++ | 0.6 | 0.0 | 1.79 | 0.0 | 0.0 | 78.95 | 53.73 |
| Ours | **30.69** | 23.85 | **60.51** | **41.67** | 76.77 | **93.94** | **69.70** |