B Confidence-based ROC curves

This appendix contains the individual ROC curves plotted during rotated object detection using the confidence-based methods described in chapter 6. As in section 5.4, graphs are shown in pairs, with the first showing the angle range increasing from 0° to the approximately best range, and the second showing the angle range increasing from there to 90°.

The curves compared in section 6.4 follow the best points from each pair of these graphs, using the method described in section 2.7.3.1.
Figure B.1: ROC curves for fish detection on rotated images using binary detection followed by hill-climbing, varying the cascade random angle range

Figure B.2: ROC curves for fish detection by rotated cascades using binary detection followed by hill-climbing, varying the cascade random angle range
Figure B.3: ROC curves for fish detection on rotated images using confidence mapping, varying the cascade random angle range.
Appendix B Confidence-based ROC curves

Figure B.4: ROC curves for fish detection by rotated cascades using confidence mapping, varying the cascade random angle range.

(a) Confidence mapping, no failure tolerance, 0°..15° range
(b) Confidence mapping, no failure tolerance, 15°..90° range
(c) Confidence mapping, failure tolerance=1, 0°..15° range
(d) Confidence mapping, failure tolerance=1, 15°..90° range
Figure B.5: ROC curves for seahorse segment detection on rotated images using binary detection followed by hill-climbing, varying the cascade random angle range
Figure B.6: ROC curves for seahorse segment detection on rotated images using confidence mapping, varying the cascade random angle range

(a) Seahorse heads, $0^\circ..20^\circ$ range
(b) Seahorse heads, $20^\circ..90^\circ$ range
(c) Seahorse bodies, $0^\circ..15^\circ$ range
(d) Seahorse bodies, $15^\circ..90^\circ$ range
Figure B.7: ROC curves for seahorse segment detection by rotated cascades using binary detection followed by hill-climbing, varying the cascade random angle range.

(a) Seahorse heads, 0°..20° range

(b) Seahorse heads, 20°..90° range

(c) Seahorse bodies, 0°..10° range

(d) Seahorse bodies, 10°..90° range
Figure B.8: ROC curves for seahorse segment detection by rotated cascades using confidence mapping, varying the cascade random angle range.