

5 Conclusion

This paper illustrates an optimization of the Area Difference Distance measurement. We can numerically interpret the minimum difference between any two arbitrary contours after translating, rotating, and scaling a floating contour in relation to the fixed contour. Figures 1-5 and 7-8 show promising results of optimal alignment between two contours, with relatively small outcomes of distance. Our future focus will be applying the alignment method with various brain contours. By calculating the minimum distance between a fixed and floating contour, classification of these shapes, relative to their difference to the fixed contour, will be represented more accurately. Prior anatomical shape information in medical imaging can be generated through the application of this metric function. For example, abnormalities of the contour in certain areas of a brain may suggest serious defects. Advancements such as this, which rely on the Area Difference Distance metric, will be the focus of our future work.

References

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