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## A Modified Potential Field Model for Shape Interpolation

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### Abstract

Geometric properties of a two-dimensional polygonal region are inherently useful in shape interpolation. Traditionally, shape interpolation begins with a collection of characteristic points that define the original polygons. The collection of characteristic points is confining in nature and does not deliver the desired solution at all times. This paper details an interpolation technique that takes a wholistic approach. The model draws on the principles and physical properties of potential fields. The model presented is adaptable to the three-dimensional space with little change in the computational complexity.

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