Colloquium Series

Text Recognition with Computational Topology and Geometry

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Abstract: Robust character recognition is a hard problem in computer vision. We attempt to define computable characteristic features of shape, invariant under certain kinds of distortion, sufficient to distinguish letter forms from one another in a fixed font. The definitions are inspired by discrete topology and geometry and lead to some interesting results discretizing famous ideas from continuous plane topology and geometry. This is joint work with Aaron Gaut, a 2016 CPP alum, who is now robotics systems engineer at the Jet Propulsion Laboratory (NASA JPL).

Keywords: topology, discrete geometry, computer science

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