A REVIEW ON DELAUNAY TRIANGULATION WITH APPLICATION ON COMPUTER VISION

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ABSTRACT

Delaunay Triangulation is formed by a net of triangles that guarantee one property: the circumcircle of each triangle contains only the vertices of the triangle; then, there are not any point of other triangle inside the circum-circle; this property makes the Delaunay triangulation unique. Taking advantage of the uniqueness, Delaunay Triangulation has been used to modeling several problems in different fields; for instance, in this document, has been used to modeling computer vision problems. Rather than solve one problem, this is based on propose to Delaunay Triangulation as an alternative for different application on the area. The preliminary result are the extraction of the features from an image in order to construct the set of points from Delaunay Triangulations, usually called cloud of points from a Delaunay Triangulation. The Delaunay triangulation constructed, shows some similarities between the triangulation and the image; for instance; the result of overlapping the image and the Delaunay Triangulation shows the silhouette from contrasting objects from the image. The question is how can be used this information in order to understanding the image geometry?

KEYWORDS: Cloud of Points, Computer Vision, Delaunay Triangulation, Feature Extraction