Add Features: All Measure Properties - 46%

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Tags :
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Goal : Add Features: All Measure Properties

Procedure :

When we divide the image based on the region while pre-processing the image, we can get a lot of good features from it. The features are as follows:

i. ratio

ii. minor_axis_length

iii. major_axis_length

iv. area

v. convex area

vi. eccentricity

vii. equivalent_diameter

viii. euler number

ix. extent

x. filled area

xi. orientation

xii. perimeter

xiii. solidity

xiv. centriod

As we can see from the features, these are all geomatrical properties of the image. We have had a lot of success from classifying the images just from the width to height ratio before. These all additions should improve the performance by a lot. This makes a lot of sense as the images vary a lto and can be easily distinguished by their geomatrical shapes. A few of the classes have very similar shapes and can't be distinguished. We can identify these classes later and try to address them by some other method.

Steps:

1. Calculated all the features by using the Measure Module from the scikit-image library.

2. Added the features to the feature matrix.

Results :

The efficiency increased from 43% to 46%