# Image Segmentation

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# **Image Segmentation**

- Introduction
- Methods

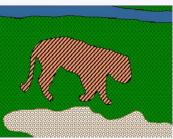
#### Image segmentation:

• The process of partitioning a digital image into **multiple segments**.

#### The goal of segmentation:

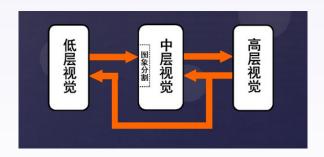
• **Simplify** and **change** the representation of an image into something that is more meaningful and easier to analyze











### Methods

Segmentation algorithms are generally based on  $\underline{\text{two basic properties}}$  of gray-scale values

- Discontinuity
- Similarity

A universal algorithm of segmentation does not exist, as each type of image corresponds to a specific approach.

### Methods

- Thresholding
- Edge-based Segmentation
- Region-based Segmentation
- State-of-the-art Methods