

Image Data Characteristics



Spatial Structure

Pixel relationships and local patterns are critical



High Dimensionality

Small images contain thousands of features



Translation Invariance

Objects recognized regardless of position



Scale Variance

Same object can appear at different sizes



Color Channels

RGB, grayscale, or other color spaces



Resource Intensive

Significant storage and computation needed

Hierarchical Features

Edges



Textures



Parts



Objects



Requires significant storage and computational resources