1. Structural Similarity Index (SSIM):

* Compares the structural information of two images, taking into account luminance, contrast, and structure.
* Considers human perception in its formulation and has been shown to provide better results than other metrics in certain scenarios.
* Measures the similarity of the structural patterns between two images and returns a value between -1 and 1, with 1 indicating a perfect match.

1. Peak Signal-to-Noise Ratio (PSNR):

* Measures the quality of the two images based on their peak signal-to-noise ratio.
* Calculates the mean squared error between the two images and then converts it to decibels (dB) using a logarithmic scale.
* Provides a straightforward and widely used method for image quality comparison, but does not always correspond well to human perception.

1. Mean Squared Error (MSE):

* A simple algorithm that calculates the average squared difference between the two images pixel by pixel.
* Provides a fast and easy method for comparing image similarity.
* However, it may not accurately reflect human perception of image quality and is sensitive to small variations in pixel values.