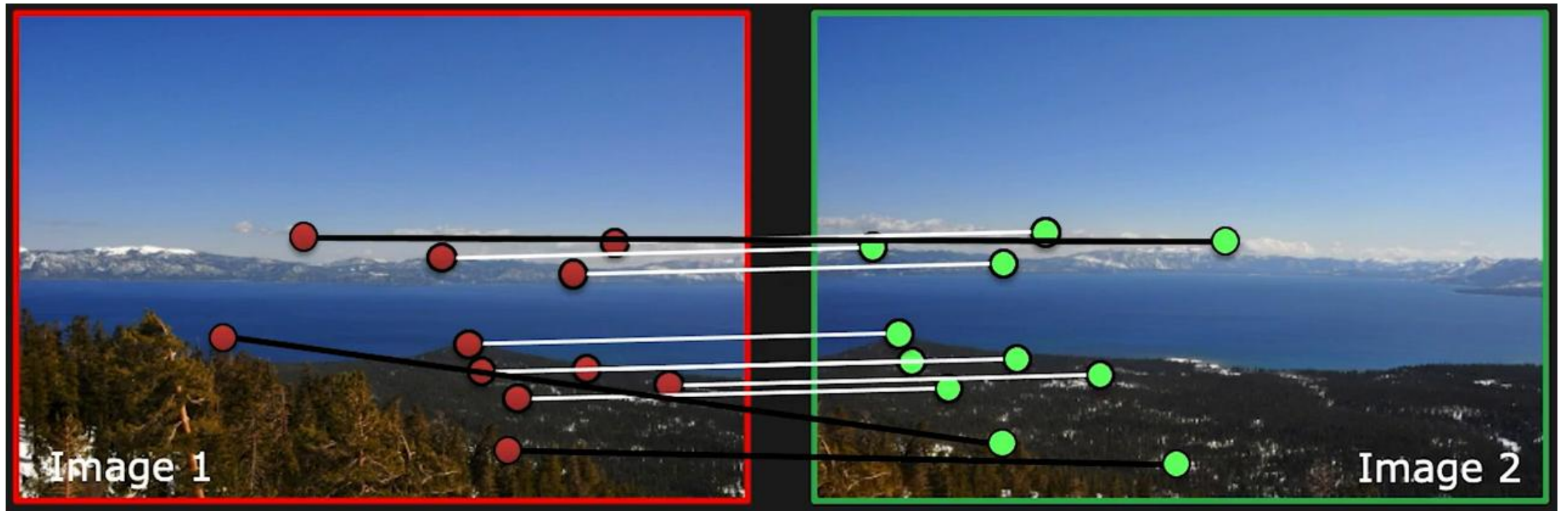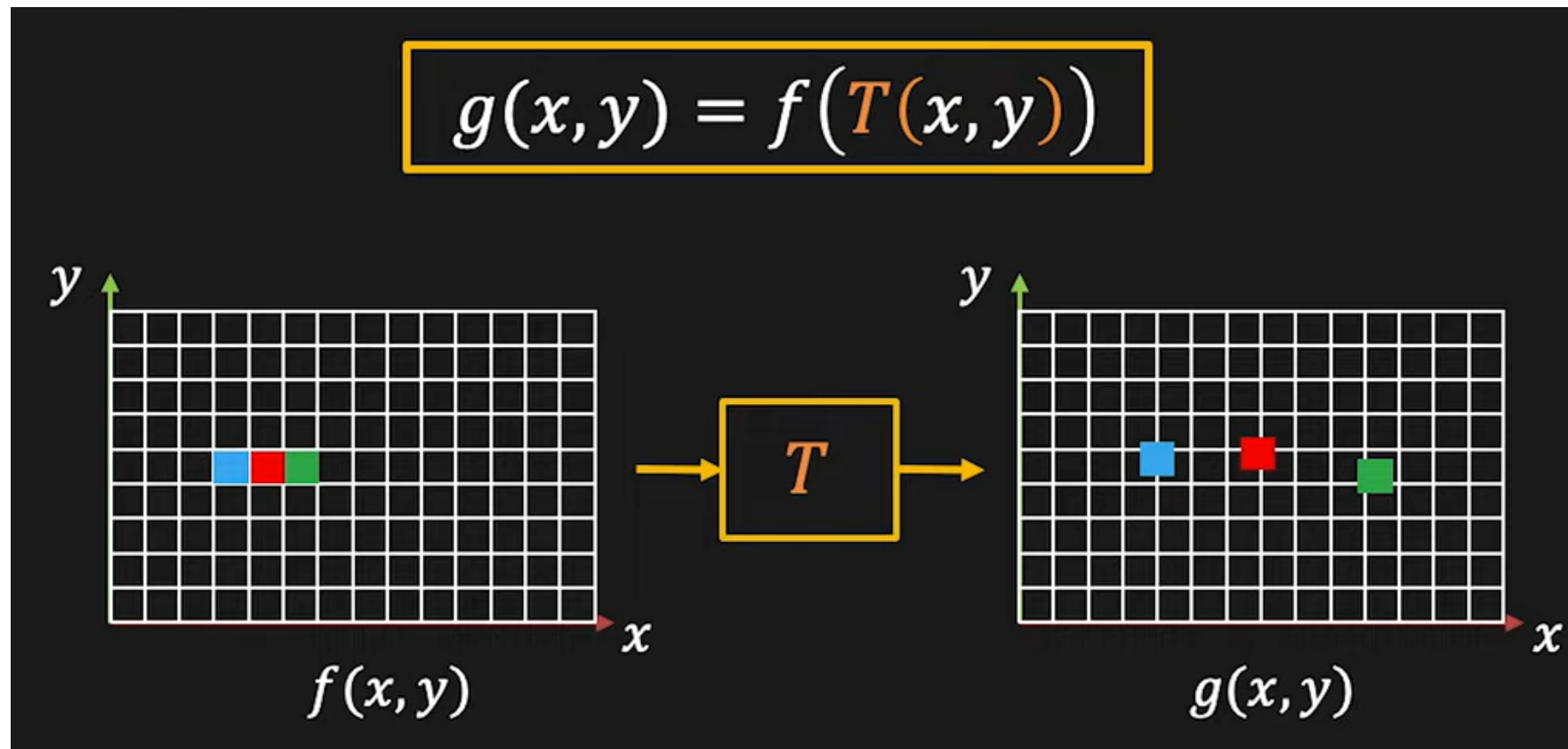Image
Stitching

Outliers

RANSAC

1. Randomly choose s samples. Typically s is the minimum samples to fit the model.

2. Fit the model to the randomly chosen samples.

3. Count the number M of the data points (inliers) that fit the model within a measure of error ε.

4. Repeat steps 1-3 for N times.

5. Choose the model that has the largest number M of inliers.

6. Use all the inliers to find refined model of homography.

Forward Warping

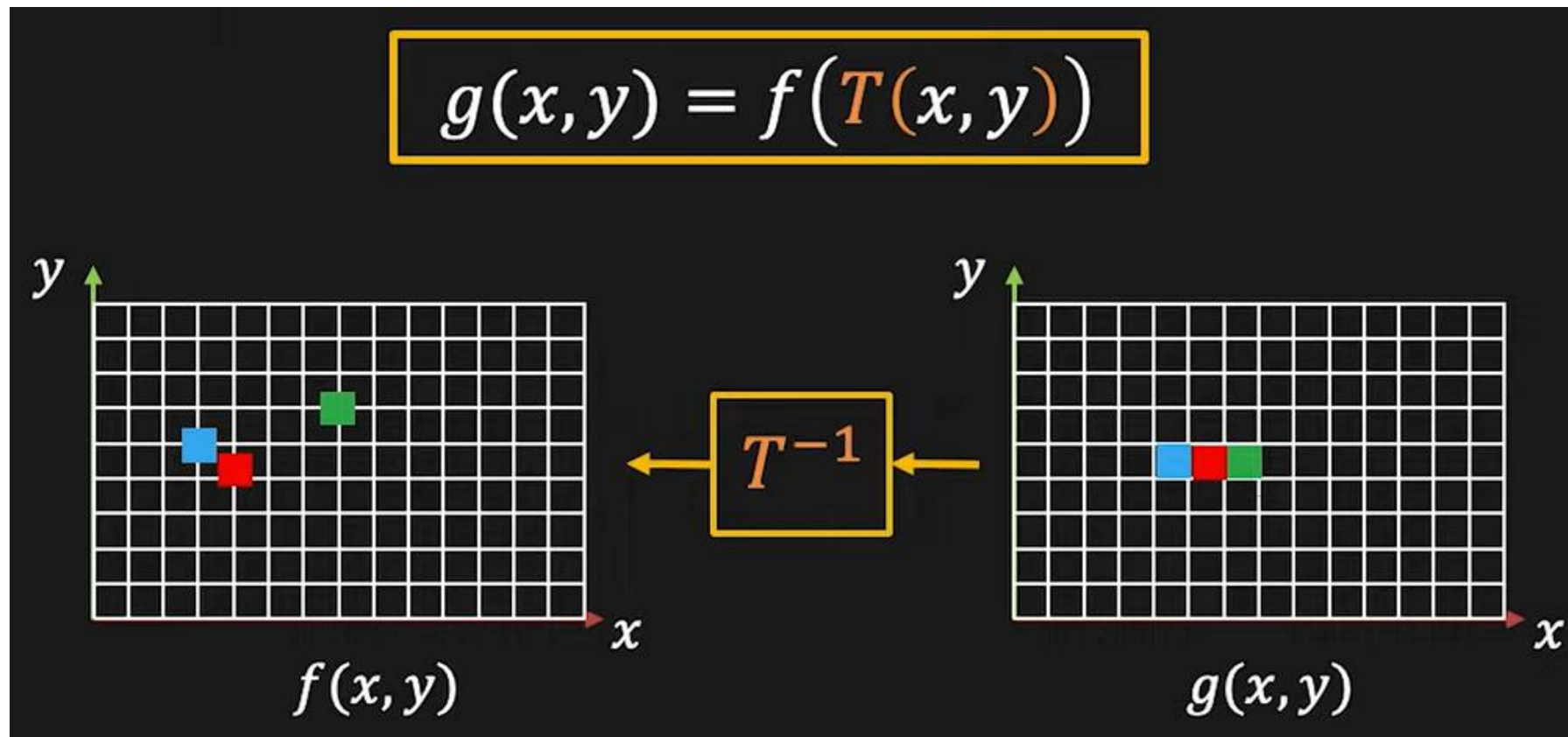$$g(x,y) = f\big(T(x,y)\big)$$

$f(x,y)$

T

$g(x,y)$

Backward Warping
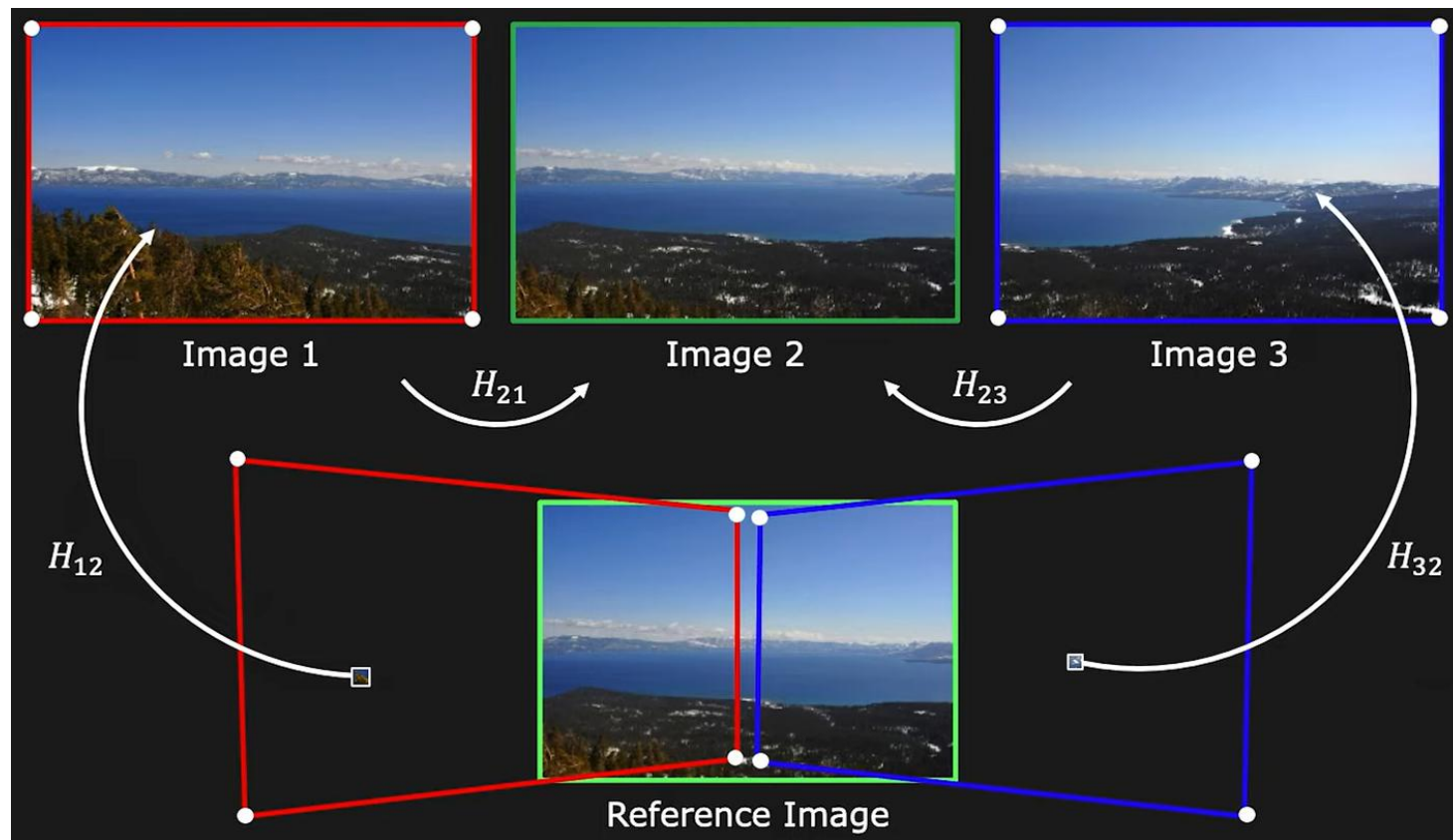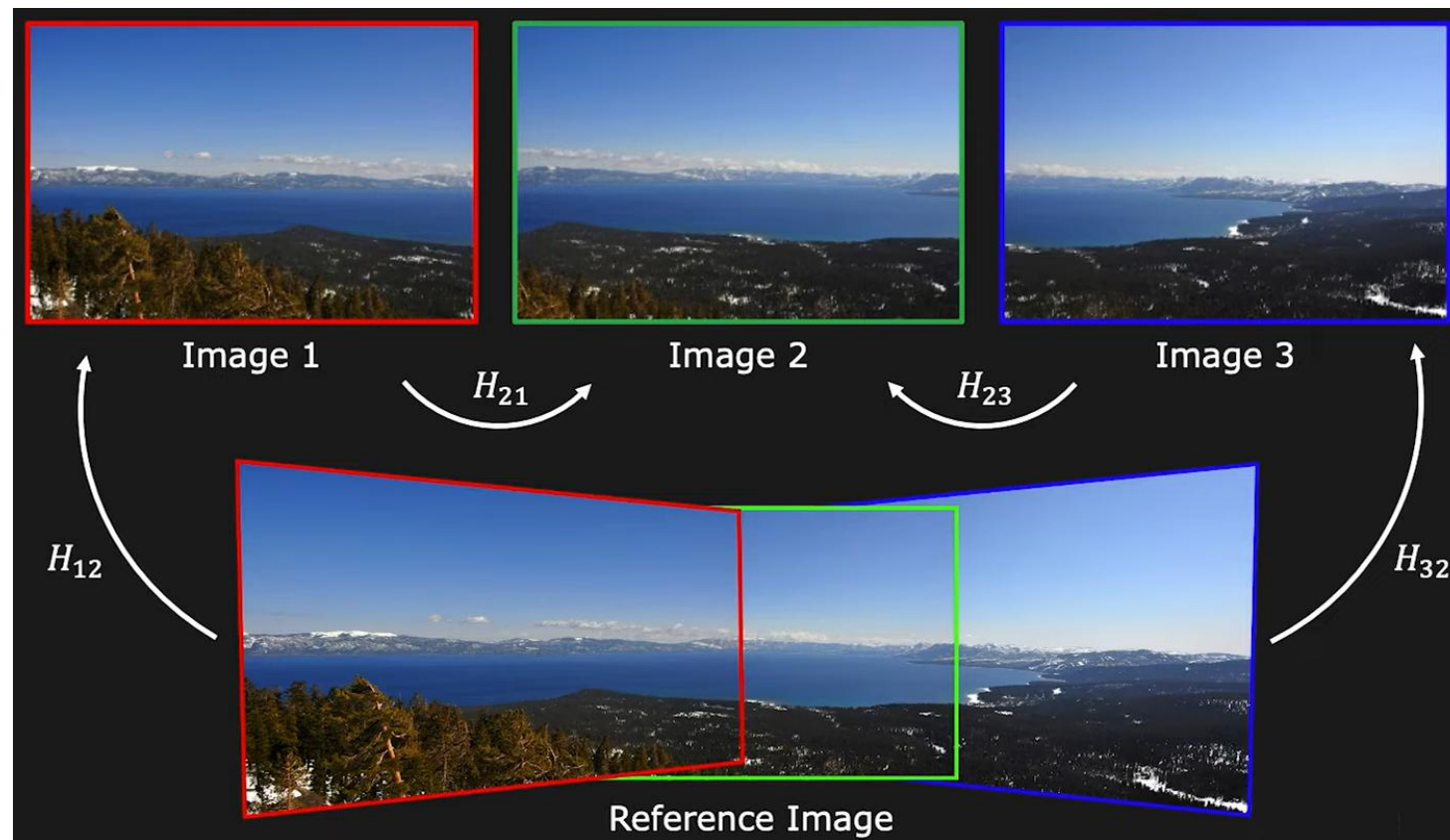

$$g(x,y) = f\big(T(x,y)\big)$$

Image Alignment

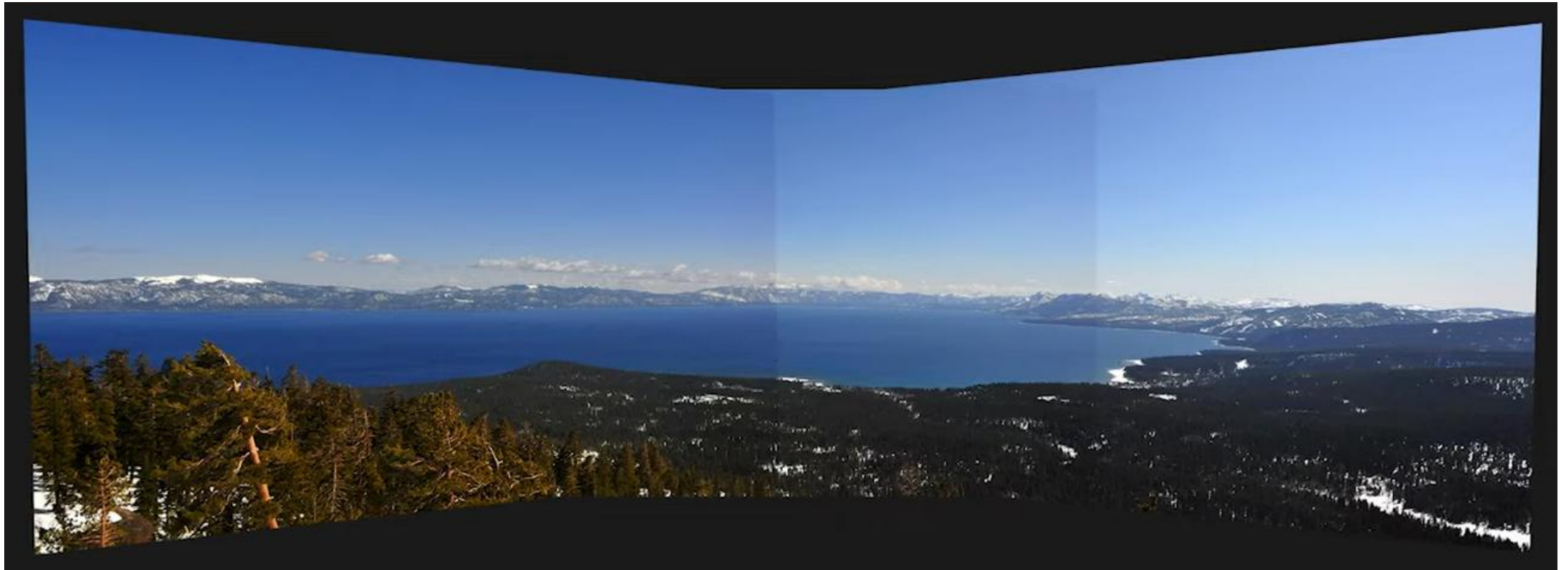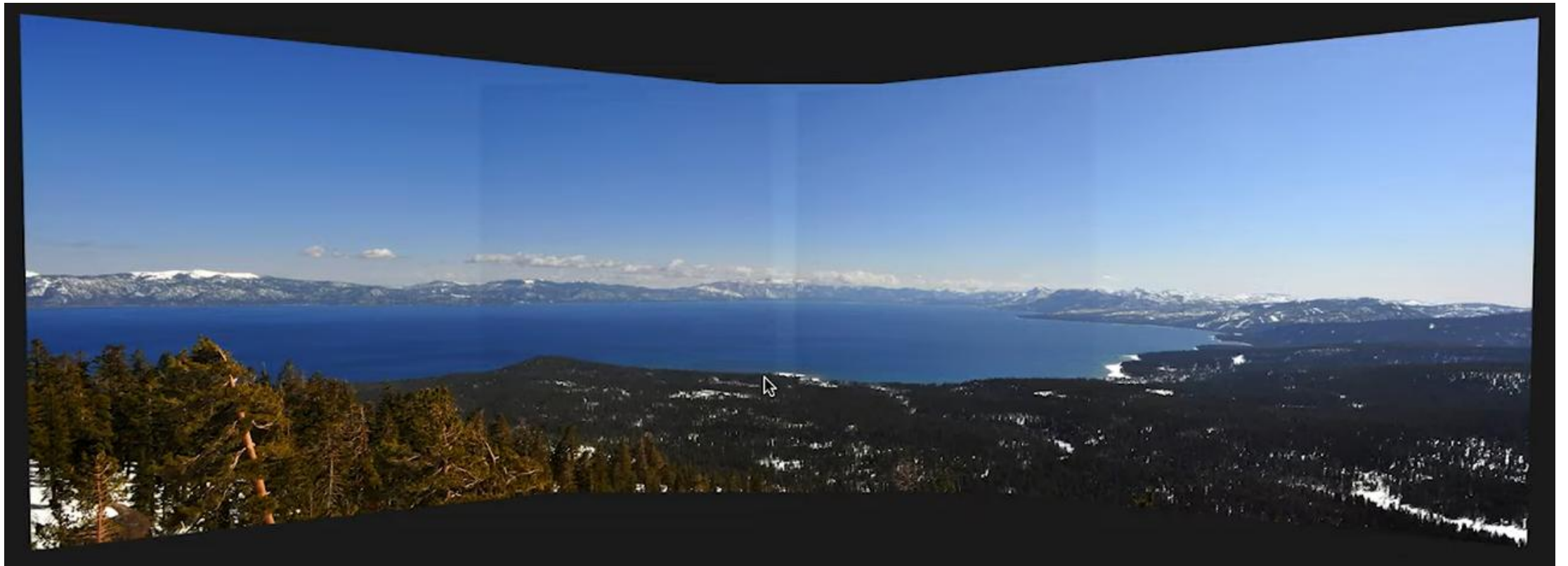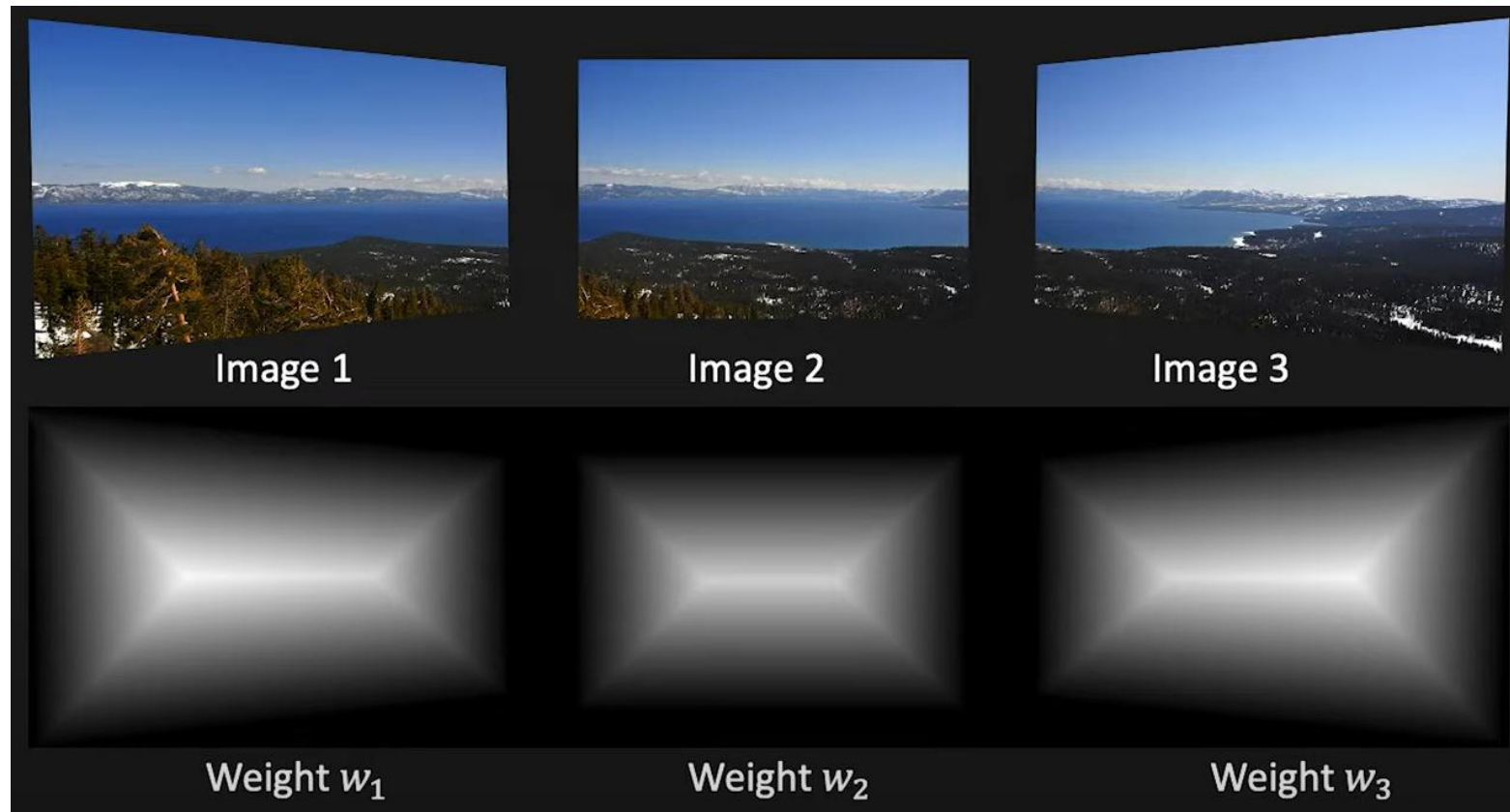# Image Alignment

Image Blending

Image Blending: Averaging

Image Blending: Weighting function

Weighted Blending

Overlaid Aligned Images

Blended Image

Image Blending example

Source Images

Aligned Images

Notre-Dame Paris

Source Images

Blended Image