Basic Computer Vision Change Detection Report

Executive Summary

The Basic Computer Vision method processed satellite imagery and detected 15,000 pixels of change across 25 distinct regions, representing 6.00% of the total image area. Processing completed in 2.450 seconds. The average confidence score for detected changes was 0.764.

Method Description

This method uses traditional computer vision techniques including image differencing, Gaussian blur filtering, and morphological operations to detect changes between two satellite images. It applies threshold-based segmentation and contour detection to identify change regions. This approach is computationally efficient and provides reliable results for clear, high-contrast changes.

Results Summary

Metric	Value
Total Change Pixels	15,000
Number of Change Regions	25
Total Change Area	0.00 sq units
Processing Time	2.450 seconds
Image Dimensions	500 x 500
Average Confidence	0.764

Change Statistics

Region Size Analysis:

- Largest region: 980 pixels
- Smallest region: 105 pixels
- Average region size: 513 pixels
- Median region size: 519 pixels

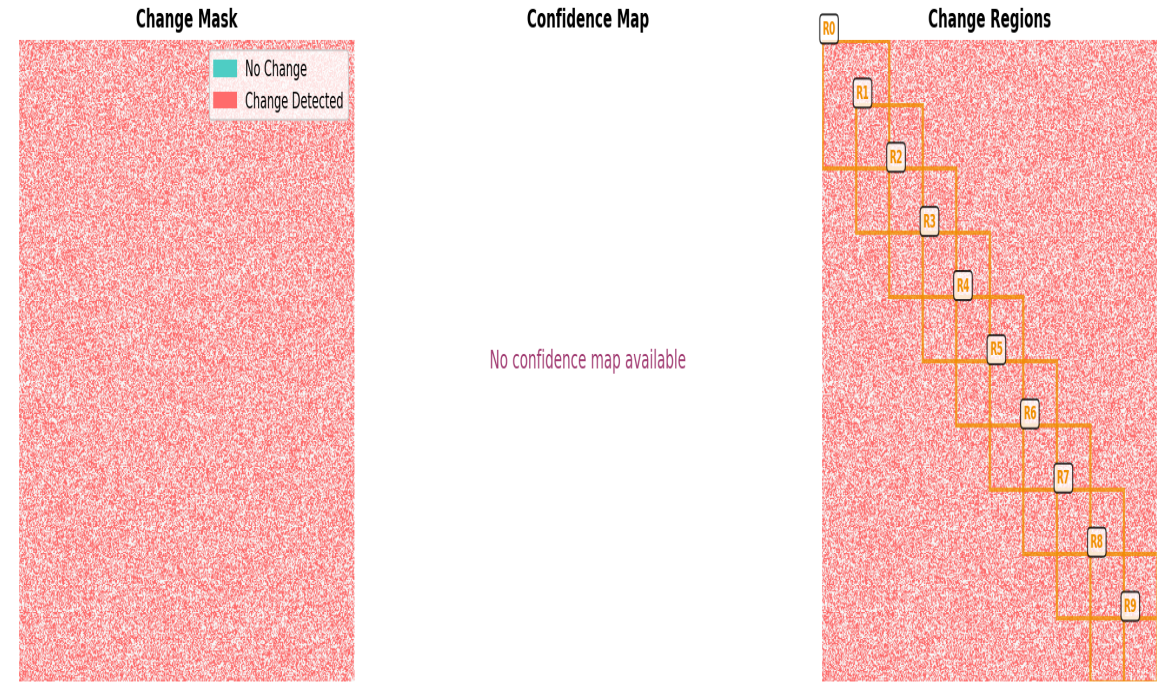
Top 5 Largest Change Regions:

Region ID	Area (pixels)	Confidence	Center (x, y)
16	980	0.966	(850, 850)
3	973	0.825	(200, 200)
17	936	0.993	(900, 900)
8	851	0.705	(450, 450)
4	850	0.996	(250, 250)

Technical Details

Parameter	Value
Implementation	Basic Computer Vision
Version	1.0.0
Timestamp	2025-08-24 19:11:56
Input Image 1	orlando2010.png
Input Image 2	orlando2023.png
min_area	100
threshold	0.5

Visualizations



Report generated on 2025-08-24 19:11:56