Basic Computer Vision Change Detection Report

Executive Summary

The Basic Computer Vision method processed satellite imagery and detected 233,235 pixels of change across 259 distinct regions, representing 26.70% of the total image area. Processing completed in 0.095 seconds.

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	233,235
Number of Change Regions	259
Total Change Area	233235.00 sq units
Processing Time	0.095 seconds
Image Dimensions	1024 x 853
Average Confidence	N/A

Change Statistics

Region Size Analysis:

- Largest region: 31,059 pixels
- Smallest region: 100 pixels
- Average region size: 779 pixels
- Median region size: 242 pixels

Top 5 Largest Change Regions:

Region ID	Area (pixels)	Confidence	Center (x, y)
7	31,059	1.000	(389, 157)
1	12,935	1.000	(66, 89)
423	12,588	1.000	(713, 381)
198	11,724	1.000	(113, 344)
602	10,005	1.000	(388, 554)

Technical Details

Parameter	Value
Implementation	Basic Computer Vision
Version	1.0
Timestamp	2025-08-24 20:13:47
Input Image 1	lv2010.png
Input Image 2	lv2022.png
threshold_method	otsu
blur_kernel	(5, 5)
morphology_kernel	(3, 3)
min_area	100

Visualizations

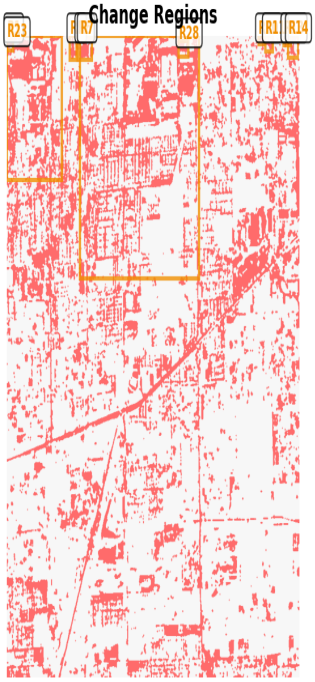
Basic Computer Vision - Change Detection Results

Change Mask

Confidence Map

No confidence map available

Change Regions



Report generated on 2025-08-24 20:13:48