



Test Run 1

This project was an attempt to see if Support Vector Machine (SVM) supervised classification was viable for capturing surface ruptures in a cluttered locale.

During the 2019 Ridgecrest Earthquake swarm, the 7.1 Mw main shock and the 6.5 Mw forekick produced several kilometers of rupture. For this project, high-resolution (30m) imagery of a small segment of the 7.1 Mw was used.

The original raster was split to perform a 8, cross method 5 times.

Results show:

1. Heavy dependence on the training data used
2. Quality of raster
3. Thickness of the rupture

Test Run 4



Test Run 2

SVM Classification of Surface Ruptures From 7.1 Mw Earthquake in Ridgecrest, CA

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All Tests



Original Raster



Test Run 3



- USGS Surface Lines
- Classification
- Rupture
- Vegetation



NOTES:
 1. All images are in UTM projection, Zone 12N, datum NAD 83.
 2. All images are in 30m resolution.
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 4. All images are in 30m resolution.
 5. All images are in 30m resolution.
 6. All images are in 30m resolution.
 7. All images are in 30m resolution.
 8. All images are in 30m resolution.
 9. All images are in 30m resolution.
 10. All images are in 30m resolution.

Test Run 5

