


Forest Fire Detection “Smokey” Web App

Introduction

After scraping the images from the web and training the convolutional neural network using python, I deployed the model in a streamlit app hosted on my local machine. Below are some screenshots of the app in action.

Detecting Fires

Upload a satellite picture in .jpg format of a forest to test the model

 Drag and drop file here
Limit 200MB per file • JPG

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 ap_18162723291246_wide-2dc09841630aeda3b300a8511e66134fbbad95ce.jpg 511.4KB X



Smokey believes that there is a wildfire. The probability of a wildfire is 100%!

The model was able to determine that a fire was occurring based off of this satellite image.


Upload a satellite picture in .jpg format of a forest to test the model

 Drag and drop file here
Limit 200MB per file • JPG

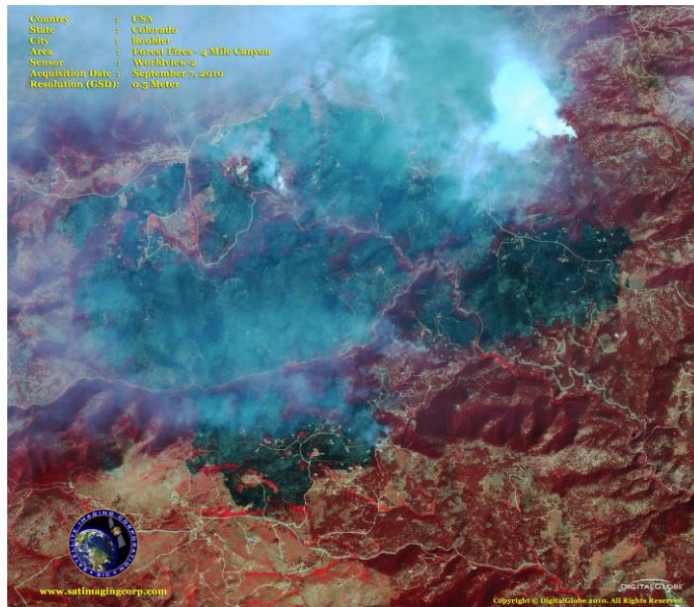
Browse files



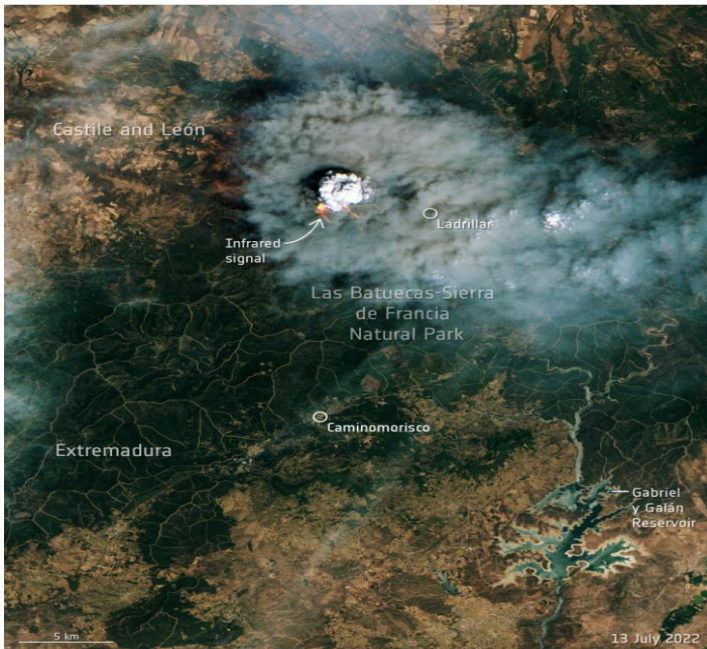
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Smokey believes that there is a wildfire. The probability of a wildfire is 100%!



The model was also able to identify this fire near Boulder Colorado, which is a bit more obscured than the image above.

The model identified this wildfire near Salamanca Mexico, assigning a wildfire probability of 96%.



The model identified that no wildfire is occurring here, only assigning a fire probability of 2%.

Smokey believes that there is no wildfire. The probability of a wildfire is 2%!

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feature_deforestation_main_cr-760x378.jpg 94.5KB



The model was not fooled by this trickier picture. Despite clouds resembling smoke, the model assigned a fire probability of 14% and correctly identified that no fire is occurring.

Smokey believes that there is no wildfire. The probability of a wildfire is 14%!