

Deconvolving daily Planet imagery using Machine Learning.

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Project description

The goal of this project is to improve the sharpness of satellite imagery using Machine Learning. Satellite sensors are not perfect, and acquiring a single pixel is a technological challenge, often some light leak from the neighbor pixel. This issue is solved using a deconvolution phase in the processing of the imagery. When using cheaper satellites, the situation is coming worse with pixel interpolation (therefore soothing) resulting of Bayer pattern use in the sensor, and at the source of number issues such as aberrant color along sharp objects. Here we propose to improve the imagery by correct these aberrations and sharpening the images using a Neural Network. The result of this method is expected to be general, but a particular focus would be on sharpening gully erosion features.

Job requirements

Experience in programming (e.g., using Python) is a prerequisite. Machine Learning expertise is **NOT** a prerequisite. Experience with remote sensing image processing, analysis, interpretation and classification could be desirable.