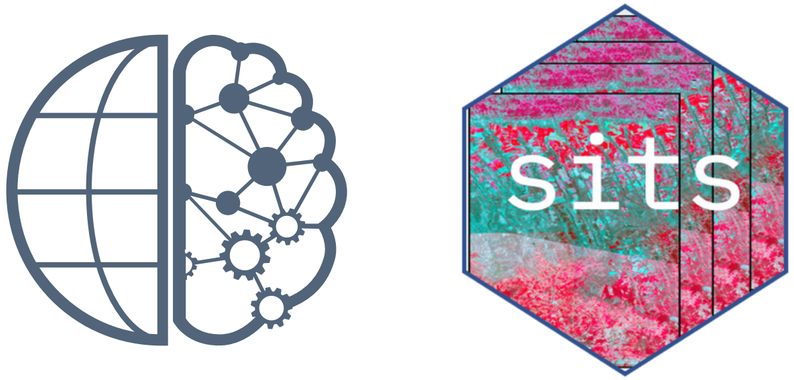
Detecting deforestation using data cubes and deep learning



Example Knowledge Package

The goal of this package is to present how the sits R package can be used to generate a deforestation map

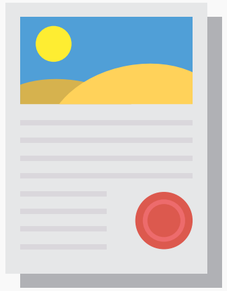
The content of this example package was produced based on the sits package documentation.

Package content

In this example package, the following resources are available:

In this example package, the following resources are available:

Article



Article describing the application methodology

In this example package, the following resources are available:

Article

LULC Map

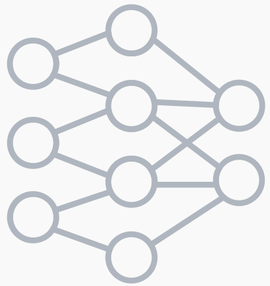
LULC Map results of the application processing workflow

In this example package, the following resources are available:

Article

LULC Map

ML Model



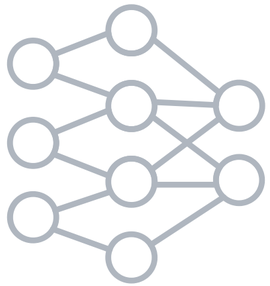
Trained ML Model used to generate the LULC Map

In this example package, the following resources are available:

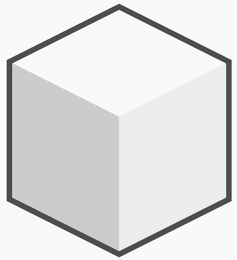
Article

LULC Map

ML Model



Data Cube



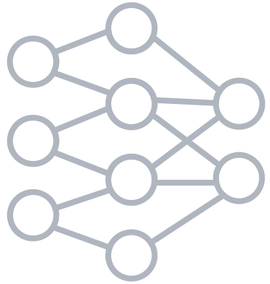
Data Cube used to extract the input time-series data to generate the LULC Map

In this example package, the following resources are available:

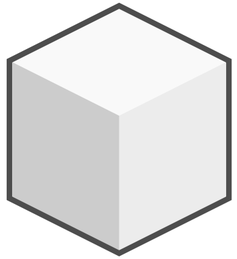
Article

LULC Map

ML Model



Data Cube



Samples

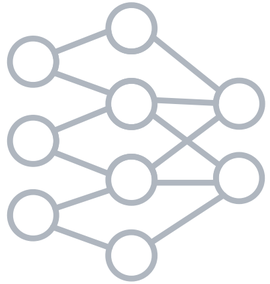
Deforestation samples used to train the ML Model

In this example package, the following resources are available:

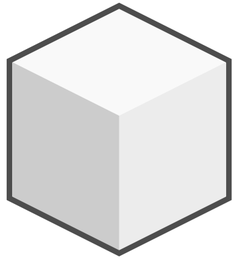
Article

LULC Map

ML Model

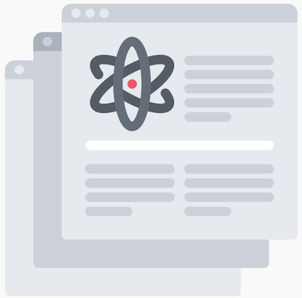


Data Cube



Samples

Docs



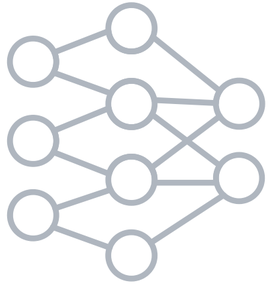
Softwate documentation to support the use and customization of the processing scripts

In this example package, the following resources are available:

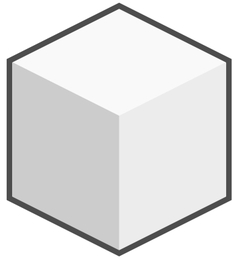
Article

LULC Map

ML Model

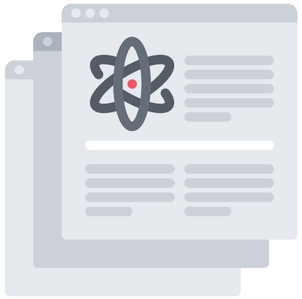


Data Cube



Samples

Docs



Scripts

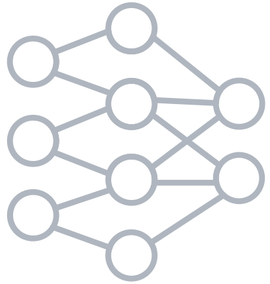
Processing scripts used to handle data, train model and generate the application results

In this example package, the following resources are available:

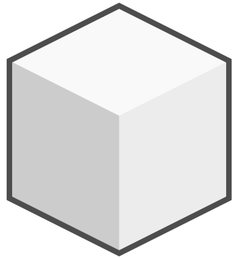
Article

LULC Map

ML Model

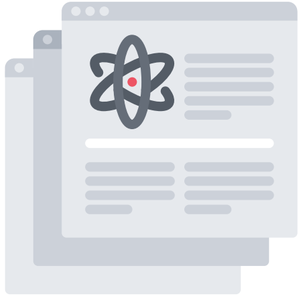


Data Cube



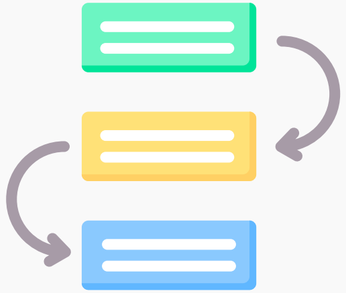
Samples

Docs



Scripts

Workflow



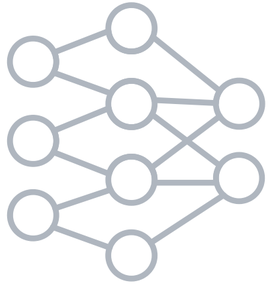
Processing workflow applied to the scripts to generate the results

In this example package, the following resources are available:

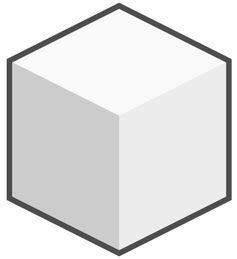
Article

LULC Map

ML Model

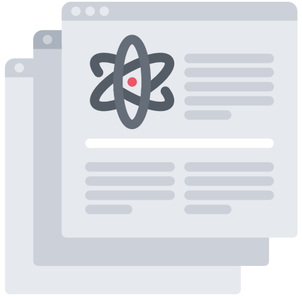


Data Cube



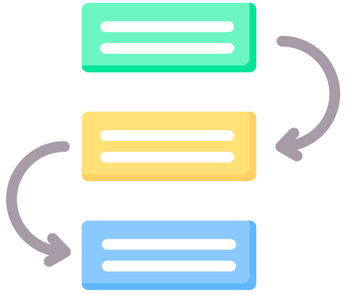
Samples

Docs

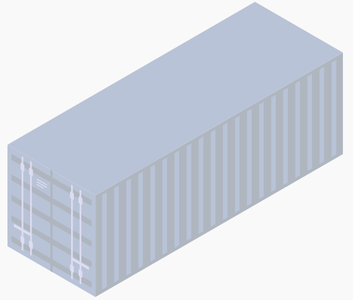


Scripts

Workflow

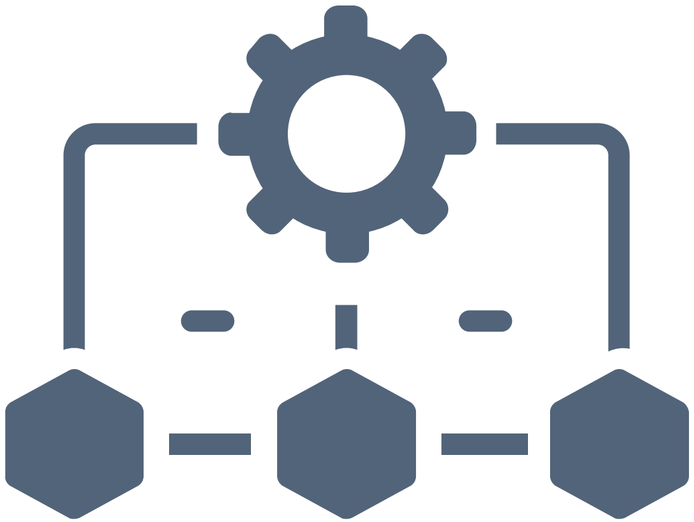


Environment



Environment (Docker image) used to run the processing workflow

Package workflow



There are many ways to use a Knowledge Package. Thus, the workflow we will present is only recommended and does not have to be followed to use the package

Article

(1)

To start, you can learn more about the methodology of the application using the article

Article

(1)

LULC Map

(2)

As a second step, you can explore the application results. This will inspire you.

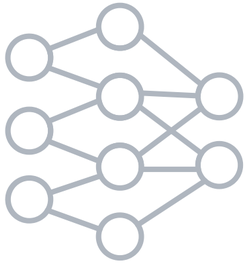
Article

(1)

LULC Map

(2)

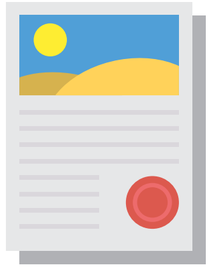
ML Model



(3)

To understand the model used to generate the results, you can use the ML Model resource

Article

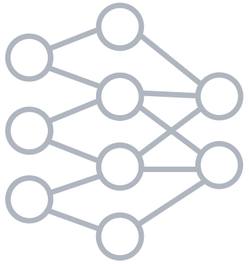


(1)

LULC Map

(2)

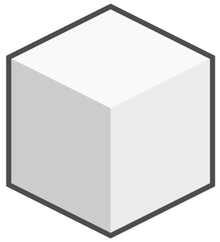
ML Model



(3)

(4)

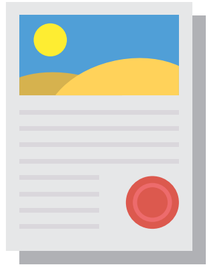
Data Cube



Samples

As an extension for the model content, you learn more about the data used as input for it

Article

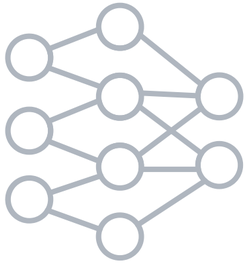


(1)

LULC Map

(2)

ML Model

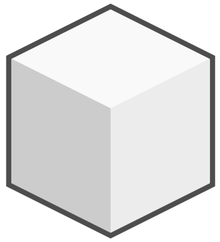


(3)

Finally, if you want, you can explore the processing scripts and use them to create new results

(4)

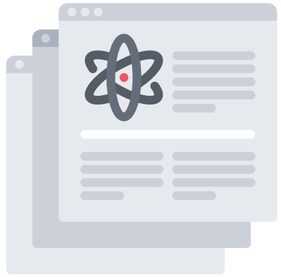
Data Cube



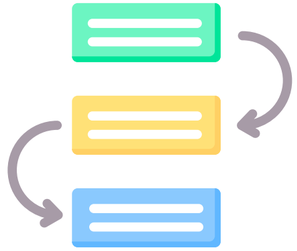
Samples

(5)

Docs

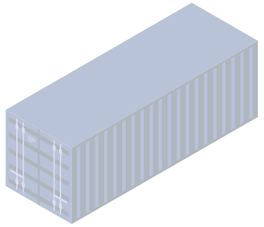


Workflow

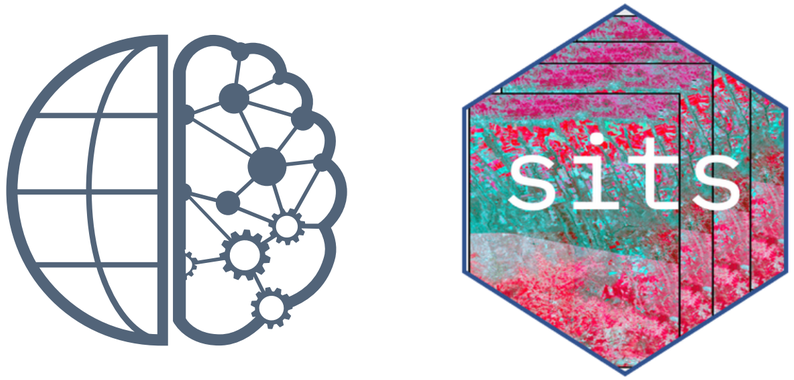


Script

Environment



Detecting deforestation using data cubes and deep learning



Thank you!

Example Knowledge Package