

UN Global Platform - Mapping the urban forest

2018-10-01

Following up from our recent Mapping the urban forest research, this short-term project aims to deploy our image processing pipeline on to Algorithmia - a distributed computing environment used by the UN Global Platform project.

Team members

- Phil Stubbings
- Joe Peskett

The need

In addition to demonstrating effective use of reusable algorithmic components, the project aims to address the need to deploy our image processing pipeline in a scalable environment that can be used elsewhere.

Impact

The project will result in a number of publicly available, language agnostic web services that can be used by other practitioners.

Data science

The project builds upon our existing urban forest project, which makes use of distributed computing and deep image segmentation techniques. In this project, the objective is to port the existing pipeline to a different architecture. As such, this is mainly a data engineering effort.

Stakeholders

- Data Science Campus

- UN Global Platform

Code and outputs

- GitHub repositories with end-to-end example code.
- A number of web services deployed on the Algorithmia platform, starting with a generic street-scene image segmentation service and a service to detect vegetation in supplied images.

Related and existing work

- Algorithmia platform

Delivery

- [x] September 2018: Project started
- [x] September 2018: Generic street-scene image processing web service
- [x] October 2018: Street-scene vegetation detection web service
- [x] October 2018: Complete

Further information

Please contact datasciencecampus@ons.gov.uk for more information.

Updates

2018-10-10T12:23:19Z

Street scene segmentation algorithm and vegetation services have been deployed to the Algorithmia platform.

2018-11-29T15:58:21Z

We have now deployed a number of Algorithmia web-services to the methods.offiicialstatistics.org which can be found on our DSC organisation profile page.

In addition, source code is available for 2 of these services:

- vegetation detection algorithm
- image segmentation algorithm