AgriTech - USGS LIDAR Challenge

This project tries to produce an easy to use and designed python module for AgriTech. Water is very important for crop growth and health. By understanding how water flows through a field, and which parts are likely to be flooded or too dry. And by understanding water flow in a field by measuring the elevation of the field at many points able to predict maize harvest how water flows through a maize farm field. This knowledge will help them improve their research on new agricultural products being tested on farms.

Project Description

Data Fetching and loading: Fetch spatially bound LIDAR data from user input and return python dictionary containing all years of geopandas file

* Terrain Visualization : Give option to show data as
* 3D render plot or
* Heat map
* Data Transformation
* Topographic wetness index (TWI) - as an additional column returned with geopandas dataframe
* Standardized grid - A python code that takes elevation points output from the USGS LIDAR tool and interpolates them to a grid.

Resource Links

PDAL readers.ept