Capstone 2 Project Proposal

US Wildfire predictions

Problem Statement:

With increases in global temperature and other environmental concerns wildfire occurrence and associated destruction have increased. The increased rate and duration of recent wildfires requires properly distributed resources to effectively combat them. The goal of this capstone project is to develop a predictive model of wildfire occurrence and destruction based on recent trends. Generating a predictive model of wildfire occurrence could assist in fighting or preventing future wildfires.

Target Audience:

Accurate prediction of wildfire generation and damage audiences could include:

* Governmental Agencies
* Commercial – Insurance, Wildlife conservation, etc.
* Private – Homeowners

Dataset:

The data set for this project has been collected from the Fire Information for Resource Management System (FIRMS). The data covers 10 years of recording from January 2010 to January 2020. The data set is requested from the FIRMS system for a specified range of time and provided in CSV format. The data source also contains information for wildfires around the world enabling expansion of the dataset.

Methodology:

I will be attempting multiple modeling methods to determine the best predictive model for wildfire generation. The tasks of the model are set to provide increased functionality of the model.

Tasks:

* Generate a predictive model of wildfire occurrence.
* Determine size and duration of wildfires based on the predictive model.
* Estimate the impact on the environment and property from the predicted wildfire model.

Deliverables:

The projects results will be collected in a short report and presentation. The model to deliver will be a predictive model of likely wildfire occurrence as well as the possible extent of the fire and total possible damage.