**US Wildfire Analysis**

Table of Content

* Introduction
* Problem Statement
* Importing Data and Content
* Data Cleaning and Preprocessing
* Data Visualization
* Analysis Using ML Algorithm
* Conclusion

Introduction

Each year, forest fires consume millions of acres of land, destroying thousands of homes and properties in the United States and around the world. Fires like the 100,277-hectare Lutz Creek fire in British Columbia in August 2018 and the Camp Fire in California in November 2018, which burned more than 142,000 acres, exact a costly economic and human toll. The need to study the relationships between environmental factors and fires to minimize risk is critical.

In this project, I will show you how to analyze, visualize the data and how implement various Machine Learning Algorithms to classify the causes of wildfires. The whole model will take the ‘fire’ part of this dataset and provide percentage accuracy for all possible reasons that could cause wildfires. 1

Dataset Description & Source Link

Data Source: <https://www.kaggle.com/rtatman/188-million-us-wildfires>

This data publication contains a spatial database of wildfires that occurred in the United States from 1992 to 2015. It is the third update of a publication originally generated to support the national Fire Program Analysis (FPA) system.

The data were transformed to conform, when possible, to the data standards of the National Wildfire Coordinating Group (NWCG). Basic error-checking was performed, and redundant records were identified and removed, to the degree possible. The resulting product, referred to as the Fire Program Analysis fire-occurrence database (FPA FOD), includes 1.88 million geo-referenced wildfire records, representing a total of 140 million acres burned during the 24-year period. 2

Problem Statement

Objective? Analyzing and predicting the wildfire causes?

Data Analysis Data visualization

Figuring out the top fire-prone locations

Implement Machine Learning Algorithms to analyze and predict the causes of wildfires in United States