

Burning Questions

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Proposal:

1) How have environmental factors influenced forest fires over the last 5-20 years?

DataTypes: geodata, weather data

Environmental Factors:

- temperature
- rain/snowfall
- wind
- beetlekill/pest
- fire data
- population data from census

2) With the forest fires covering much of the US in 2020, we are interested in discovering how environmental factors have influenced forest fires over the last 5-20 years.

3) We will be analysing data from open weather, USGS, google maps api, ORNL DAAC

Data Asks

- Number of fires per year
 - Bar graph (nationally)
 - Number of fires by state/year
- Acres burned per year
 - <https://www.geomac.gov/GeoMACTransition.shtml>
 - <https://data-nifc.opendata.arcgis.com/>
 - Acres burned per year (nationally)
 - Acres burn per state/year
- Average precipitation per year
 - Average precipitation by state/year
 - Annual precipitation per year (nationally)
- Temperature per year
 - Max temperatures per year (nationally)
 - High temperatures state/year
 - Average monthly temp/state
- Fire/Weather
 - Acres burned/annual precipitation
 - Number of fires/annual precipitation
 - Acres burned/high temps
 - Number of fires/high temps

Potential Division of Labor



for each dataset (five datasets, one for each of us?):

- api calls
- data scrubbing
- visualization
- analysis
- slide deck

Bibliography

Signup sheet

- [Data.world](#)
 - Not Applicable
- [Kaggle](#)
 - Lori Fraunfelder
 - <https://www.kaggle.com/datasets?search=Fire>
 - <https://www.kaggle.com/noaa/gsod>
- [Data.gov](#)
 - Renee, Hannah
 - <http://weathersource.com/products/onpoint-api/>
 - 30 day trial, has a wildfire category
- [Public APIs](#)
 - Justin (<https://evilinsult.com/api/> ... why does this exist?!?!?), Amy
 - [AerisWeather](#) - Global weather data and imagery APIs, with a free developer subscription tier, boasting detailed documentation for simple to advanced queries, free SDKs and a Map Builder to get you up and running faster.
 - contains both weather and cartography geodata api's
 - weather
 - <https://www.aerisweather.com/support/docs/api/reference/weather-codes/>
 - cartography
 - <https://www.aerisweather.com/support/docs/aeris-maps/reference/map-layers/#all:observations>
 - free trial access (trial does not offer historical data?)
 - [Open Weather](#) - Access current weather data for any location on Earth including over 200,000 cities!
 - historical data will have to be purchased
 - [Storm Glass Marine Weather API](#) - Global marine weather data from multiple sources in one single API!
 - [Weatherbit](#) - Access forecasts, current weather, and historical weather data for any point on the Earth!
 - historical data is no free
 - <https://www.weatherbit.io/pricing>
 - [Weather Source](#) - Powerful Weather API built for systems that demand speed, reliability and heavy load.
 - 30 day trial
 - emailed sales team about accessibility of data during trial period
 - [Wunderground API](#) - Reliable data, accurate forecast, & global coverage in 80 languages.
 - [Yahoo Weather API](#) - Get up-to-date information for any location, including 5-day forecast, wind, atmosphere, astronomy conditions, and more.
- Maps

- [Amazon Maps API v2](#) - Add interactive 3D maps, graphics, and custom overlays to your Fire Tablet and Fire phone apps.
- [Bing Maps](#) - Bing Maps platform provides multiple API options for your application.
- [Cartes.io](#) - Create maps and markers for anything, without authentication. 
- [CartoDB](#) - Allows you to generate maps based on data hosted in your CartoDB account.
- [Daum Maps API](#) - Daum Maps provide multiple APIs for Korean map.
- [Google Maps API](#) - Google Maps APIs are available for Android, iOS, web browsers and through HTTP web services. [Clients can be found here.](#)
- [HERE Maps API](#) - Wide range of APIs available through JavaScript, iOS, Android, or REST services.
- [Leaflet.js](#) - An open-source JavaScript library for mobile-friendly interactive maps. 
- [Mapbox](#) - Access to MapBox's API.
- [Open Street Map](#) - API access to OSM.
- [Scribble](#) - The Scribble Maps API is a cross browser, mobile ready, HTML5/JavaScript, interactive map builder.
- [Yahoo Maps](#) - Yahoo Maps lets you easily embed rich and interactive maps using your choice of platform.
- [Yandex](#) - API for installing Yandex.Maps and the necessary tools for working it on your web app or site.
- [Awesome-APIs List](#)
 - Not significantly relevant
 - <https://www.weatherbit.io/api>
 - <http://weathersource.com/products/onpoint-api/>
- [Medium APIs List](#)
 - Not Applicable
- [Other API's](#)
 - <https://www.worldweatheronline.com/developer/api/historical-weather-api.aspx> - Free for 60 days
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