Project Topic Ideas

Problem 1: Wildfire risk in California

ML Type: Regression/predictive

Why: Wildfires have been affecting California greatly over the past few years. Understanding the most at-risk areas would benefit residents, landowners, and business owners.

Data Source:

ncdc.noaa/gov/stormevents/

Bulk data downloads (csv) from database

-search for datasets of parameters that may impact risk potential

Questions to answer:

What are the chances of a wildfire in specific areas? (search by zip code or GPS coordinates)

Are wildfires affecting specific zones more regularly than others?

Are the number of days with wildfire events per year increasing? If yes, what can we project for 2025-2030?

Problem 2: Drought in California

ML Type: Regression?

Why: Increasing concern throughout the world, but specifically in California.

Data Source:

Kaggle.com/berkeleyearth/climate-change-earth-surface-temperature-data

Drought dataset from USGS

ArcMap

Questions to answer:

What areas are being impacted by drought the most currently? What areas will be impacted the most in the future?

Problem 3: Homelessness in California

Why: Concern in San Francisco

Data Sources: ??

Questions to answer: How will crime rates be affected as homelessness decreases?

Problem 4: TBD