

Anticipating Wildfires using Machine Learning



Problem Setup

- The 2018 California wildfires cost more than \$148 billion and 85 lives
- Resources must be placed to prepare for wildfires



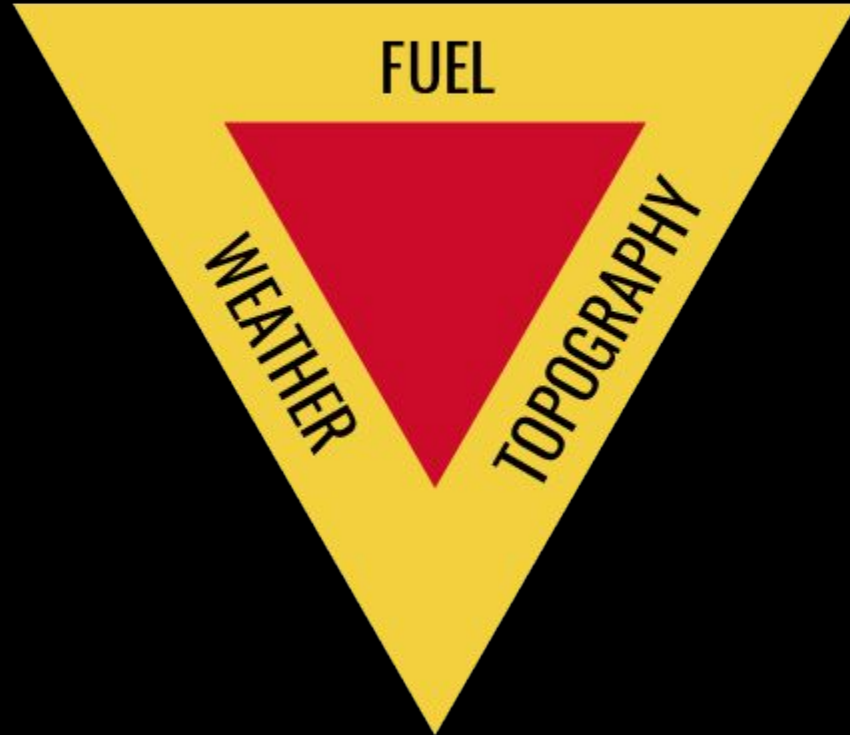




Dave Mills / USFS



Factors in Fire Behavior



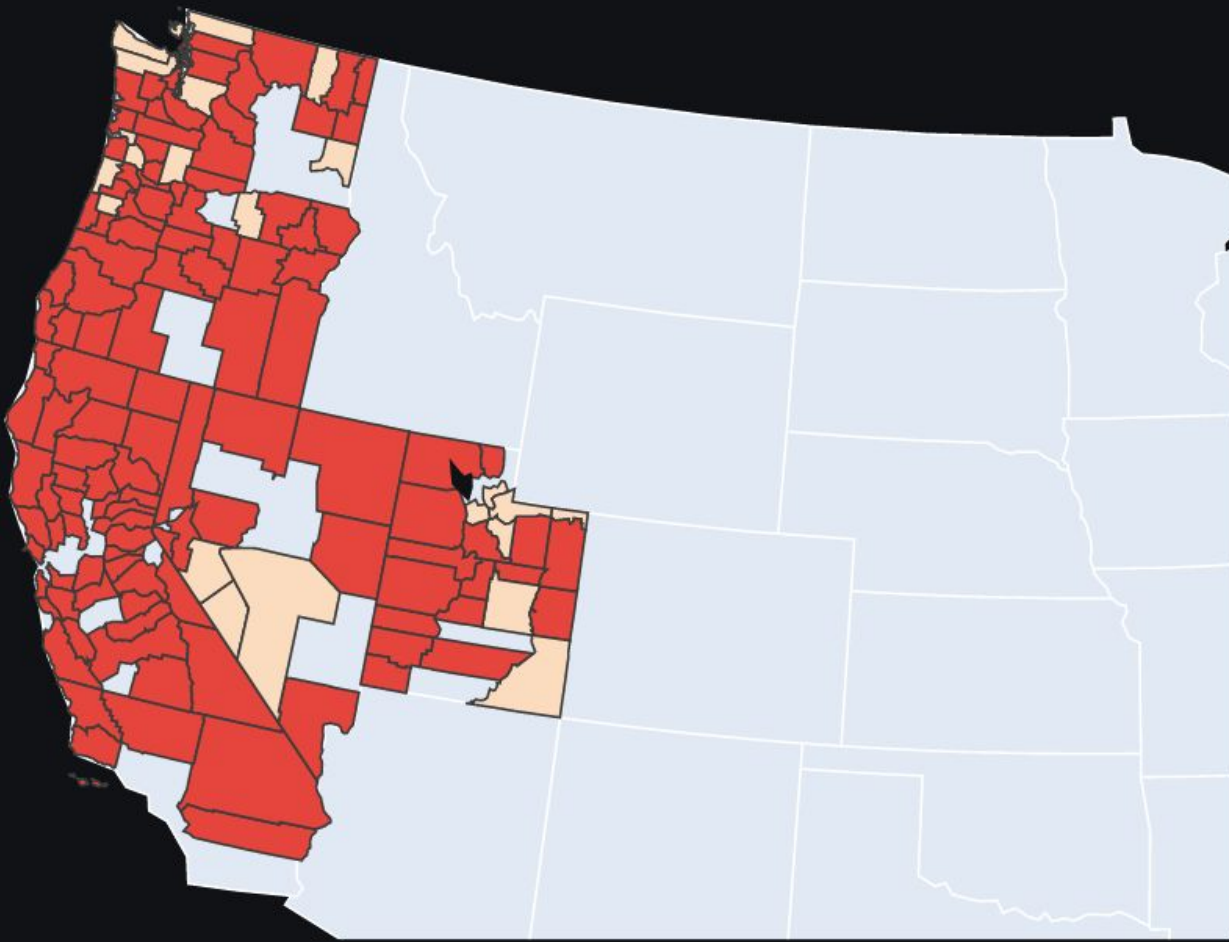


Data cleaning and
preprocessing



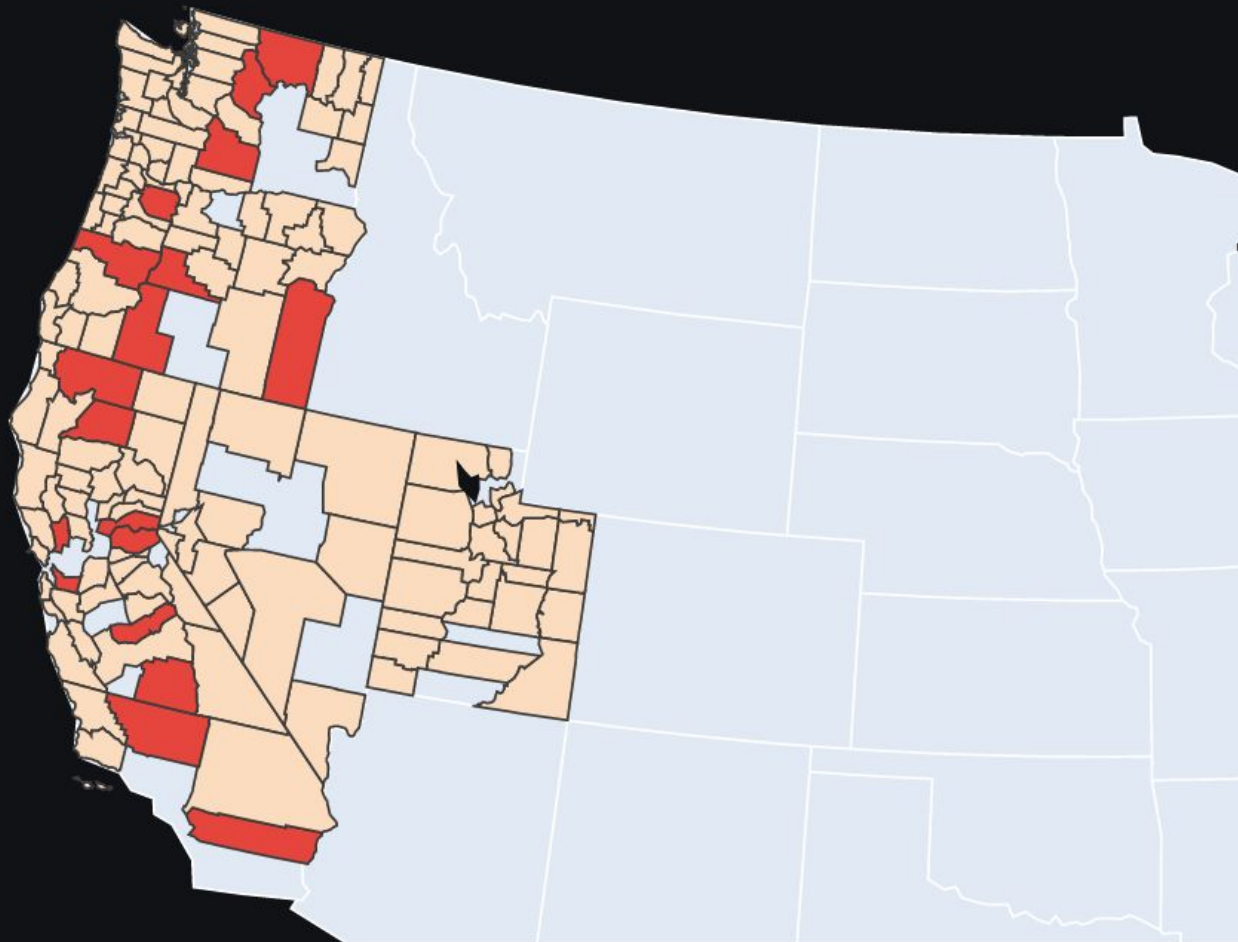
> 5e-08 % Burnt

- Recall: 84%
- Precision: 84%



> 5e-05 % Burnt

- Recall: 33%
- Precision: 50%
- Only 4% of counties burned this much in 2014



The Bottom Line

- Predictive power ranges based on cutoff
- Flexibility
- Next steps



Thank You

See my GitHub repository for methodology
details

