Terrafuse

Terrafuse uses machine learning algorithms on the terrafuse.ai platform to create sophisticated climate-risk models. In partnership with Microsoft, terrafuse is combining historical data, existing wildfire simulations, and real-time satellite observations to create hyperlocal models of wildfire risk.

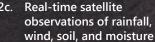




Microsoft Azure

Data inputs are stored and aggregated in the cloud

- 2a. Historical fire spread data
- 2b. Existing fire simulation data
- Real-time satellite





Fire risk model forecasts

> Physics-informed machine learning runs thousands of simulations to create risk models



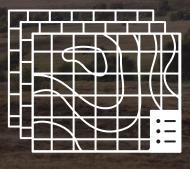
Remote Sensing

Terrafuse aggregates data from multiple sources



Land

A fire-prone area is indentified for study



APIs and graphical interfaces

> Governments, insurance companies, and the public can access and explore the models to understand fire risk

Challenge

In October 2017, wildfires devastated Northern California, burning 245,000 acres and 8,900 buildings. They were the costliest wildfires ever, including \$11 billion in insured losses. With so much on the line, government agencies, insurance companies, and the general public need a way to accurately forecast and understand wildfire risk at any given location.

Solutions

Terrafuse is building technology infrastructure on Microsoft Azure to rapidly forecast wildfire risk at the hyperlocal level, starting in areas affected by the 2017 California wildfires. By combining historical fire data with existing physical simulations and real-time satellite observations, terrafuse is building sophisticated fire risk models that will be made available via APIs and graphical interfaces to anyone interested in mitigating the effects of wildfires.

