Alpha Presentation
Wildfire Risks Forecasting Tool

The Capstone Experience
Team Anthropocene Institute

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Project Overview

• Wildfires in San Francisco’s Bay Area threaten lives, property and the environment
• Public understanding of wildfire risk lags wildfire & climate science
• We have created an intuitive web app to simulate wildfires and predict their impacts
  ▪ Accessible from any internet-connected computer, phone, or tablet
  ▪ Modern, minimalist, intuitive
System Architecture

Data Aggregators

Google Cloud

File Storage

Wildfire Modeling

Frontend UI

System components include data aggregators, file storage, and frontend UI. The diagram illustrates the integration of various tools and technologies, such as Google Cloud, Flask, and plotly.
Screenshot: Input > Risk Layer
Screenshot: Input > Temperature Layer
Screenshot: Output > Economic Impact
Screenshot: Output > Environmental Impact
What’s left to do?

• Include historical weather data and climate normals from NOAA
• Compute relevant economic, environment, and health impacts from existing data layers
• Integrate canopy spread, spotting, and fire acceleration in our model. Optimize computation time to create seamless user experience
• Update webpage design and continue to integrate frontend with backend
• Transition hosting to Anthropocene Institute Google Cloud resources