

Project Summary:

The project aims to enhance understanding and prediction of severe weather impact, specifically on power outages across diverse U.S. regions. By integrating historical power outage data with NOAA SWDI storm information, predictive models will be developed. These models will utilize storm identifiers, such as strength and distance from storm center, to forecast the probability and duration of power outages at a county level. The goal is to provide actionable insights to utility companies, emergency services, and local governments, thereby improving preparedness, response, and community safety during extreme weather events.

Key Performance Indicators (KPIs):

For Regional or Local Utility Companies:

- High Recall for Power Loss During Storm Events
- High Precision to Minimize Unnecessary Preparations

For Emergency Services and Local Governments:

- Accurate Forecasts of Expected Outage Durations

For Neighborhood Associations and Community Organizations:

- Informative Insights for Community-Based Preparations

Stakeholders:

- Regional or Local Utility Companies
- Emergency Services
- Local Governments
- Neighborhood Associations
- Community Organizations
- Individuals Interested in Community Safety