DengAI: Predicting Disease Spread

Overview

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| Raised hand with solid fill | Using environmental data collected by U.S. Federal Government agencies, can you predict the number of dengue fever cases reported each week in San Juan, Puerto Rico and Iquitos, Peru?  - Dengue fever is a mosquito-borne disease that occurs in tropical and sub-tropical parts of the world  - Symptoms of dengue fever can range from mild to severe, and in severe cases can lead to death  - Climate change is likely to produce distributional shifts that will have significant public health implications worldwide  - Dengue fever has been spreading in recent years, with many cases now occurring in Latin America  - Predicting the number of dengue cases each week in specific locations can help improve research initiatives and resource allocation to help fight life-threatening pandemics. |

# Objective

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| Raised hand with solid fill | Accurate dengue predictions would help public health workers, and people worldwide take steps to reduce the impact of these epidemics. However, predicting dengue is a hefty task that requires consolidating different data sets on disease incidence, weather, and the environment. |

**Data**

- The goal is to predict total cases for each (city, year, weekofyear) in the test set.

- The test set has data for two cities, San Juan and Iquitos, spanning 5 and 3 years, respectively.

- The test data are sequential and non-overlapping with any of the training data.

- The features include climate data, precipitation measurements, dew point temperature, air temperature, relative humidity, specific humidity, and vegetation index.

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(Resource: <https://www.drivendata.org/competitions/44/dengai-predicting-disease-spread/page/80/>)