**#Technologies Used**

##Data Cleaning and Analysis

Pandas will be used to clean the data and perform an exploratory analysis. Further analysis will be completed using Python.

## Database Storage

pgAdmin is the database we intend to use, and we will integrate PostgreSQL to display

## Machine Learning

Machine Learning is an application of artificial intelligence where a machine and or computer learns from past experiences (training data) and makes future predictions. For the project SciKitLearn is the ML library that will be used to help to build and train the model with Random Forest Regression algorithm.

Random Forest Regression algorithms are a class of Machine Learning algorithms that use the combination of multiple random decision trees each trained on a subset of data. The use of many trees gives stability to the algorithm and reduces variance.

Our training model and testing model will be broken down 70/30 split for the dataset. Dataset features will contain the cause name, the year, and the state. Our dataset target will be death rate (age adjusted death rate).

Diagram: Random Forest Regression Machine Learning

Diagram

Description automatically generated

## Dashboard

Will use Tableau for a fully functioning and interactive dashboard.

Alternative option us Dash a free Python library that we can develop a web-based and customizable and interactive dashboard within Python.