The time-series data is collected from Waggle sensors that are placed around the country. The sensor data is then stored in a Sage database, which houses data ranging from temperature, humidity, pressure, and rainfall measurements. The node that was chosen for this project was node W039, which is located on-site at Argonne and is near the meteorological tower that measures the accurate temperature from the environment. To access the data, query calls to the Sage API are made and they return the desired measurements, or in this case, the temperatures measured by the node’s temperature sensors. Additional data from the meteorological tower is collected using the same query method but from a different source. Prior to analyzing the data, it is processed and cleaned using the Python library pandas so that the relevant data is returned and visible for analysis. Once the data is ready, it is loaded from a .csv file and put into a panda DataFrame where features, such as the hour of day and month, are added into the dataset to help train the machine learning model to correctly predict the temperature that is accurately measured by the meteorological tower. Once that step is complete, the data is split into training and test sets and the temperature from the tower is separated so the model knows to predict that variable. Utilizing the Python libraries tensorflow and keras, the data is used to train a linear regression model