To solve this challenge you might use any methodology of your preference (e.g. statistical, machine learning, deep learning, reinforcement learning, etc)

The dataset represents temperature readings from an electrical submersible pump. In this dataset, you will find several failures including one catastrophic failure. The objective is to show the following:

1. Forecast the signal, what would the measurement look like in the future.
2. Find anomalies.
3. Find outliers.
4. Failure Prediction.
5. Any other method that you might want to showcase. (e.g. clustering, PCA, AE, Time-Series, RNN, etc)

The challenge is designed to be an open exercise to prove your coding and reasoning skills. Please feel free to generate as many visualizations as needed. Use the previous points as guidance but feel free to add more.

The format should be in Jupyter Notebook as it will be presented back to the engineering team. The time of delivery is one week upon receiving the challenge.

If you have any questions please do not hesitate to contact me.