Maintenance cost reduction through predictive techniques

BACKGROUND A company has a fleet of devices transmitting daily sensor readings. They would like to create a predictive maintenance solution to proactively identify when maintenance should be performed. This approach promises cost savings over routine or time-based preventive maintenance, because tasks are performed only when warranted.

GOAL You are tasked with building a predictive model using machine learning to predict the probability of a device failure. When building this model, be sure to minimize false positives and false negatives. The column you are trying to Predict is called failure with binary value 0 for non-failure and 1 for failure.

Please read the following instructions carefully:

- **Dataset is provided to you in a CSV file in the folder. Please don't manipute or change the data in the raw file**
- **Your Data Science solution should be in a jupyter notebook and pdf**
- **You are required to use Python 3.6 or later**
- **Observations and inferences should be clearly stated**
- **You should submit your solution atleast 48 hours before your interview**