Aanand Patil

Contact No: +918460335637
Email: anandpatil6440@gmail.com

LinkedIn: aanand-patil-50b866234
Github: Aanand-Patil

Education

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2015	Bachelor of Engineering	Mahatma Gandhi Institute Of Technical Education And Research Center, Navsari	*6.78/10.0*
2011	Intermediate (Class XII)	R.N.Naik Higher Secondary School	*79.21%*
2009	Matriculation (Class X)	Suman Highschool Higher Secondary School	*85.38%*

Experience

Gokulanand Petrofiber PVT.LTD|HVAC Engineer

Sept 2016-March 2019

3WR7+246, Hoziwala Industrial Estate, Vanz, Sachin, Surat, Gujarat 394235 · On-site

ELDEN Interior Design LLC|MEP Project Engineer

Aug 2019 - Nov 2021

United Arab Emirates · On-site

FINE FINISH DECORATION LLC| MEP Project Engineer

Nov 2021 - Jul 2022

United Arab Emirates · On-site

Course

INeuron| Full stack data science

May 2022 to Feb 2023

Projects

Sensor Component Failure Prediction(source code link)

Data: Sensor Data

Problem statement:

- The system in focus is the Air Pressure system (APS) which generates pressurized air that are utilized in various functions in a truck, such as braking and gear changes. The datasets positive class corresponds to component failures for a specific component of the APS system. The negative class corresponds to trucks with failures for components not related to the APS system.

True class	Positive	Negative
Predicted class		
Positive	-	cost_1
Negative	cost_2	

Cost 1 = 10 and Cost 2 = 500

- The total cost of a prediction models the sum of Cost_1 multiplied by the number of Instances with type 1 failure and Cost_2 with the number of instances with type 2 failure, resulting in a Total cost. In this case Cost_1 refers to the cost that an unnecessary check needs to be done by a mechanic at a workshop, while Cost_2 refer to the cost of missing a faulty truck, which may cause a breakdown.

- Total cost = Cost_1 * No Instances + Cost_2 * No Instances.

- From the above problem statement, we could observe that, we have to reduce false positives and false negatives. More importantly we have to reduce false negatives, since cost incurred due to false negative is 50 times higher than the false positives.

Challenges and other objectives

- Need to Handle many Null values in almost all columns
- No low-latency requirement.
- Interpretability is not important.
- misclassification leads the unnecessary repair costs.

The best Model is XGBoost Classifier with 99.6% accuracy and cost of 2950

Source code continuous integration and continuous deployment using Docker and airflow on AWS EC2 instance using S3 bucket for storage.

Programming language: Python 3.8

Packages: Numpy, Pandas, Sk-learn,

Cloud services: GitHub, airflow, AWS S3 bucket, AWS EC2 , AWS ECR, Docker, MongoDB

Exploratory data analysis using Jupyter notebook

- **EDA-car-insurance-fraud-detection(**link**)**
- **EDA-cementStrengthPredection(**link
- **EDA-for-forest-cover(**link**)**

Skills

Computer languages: PYTHON, HTML, CSS
SOFTWARE PACKAGES: PANDAS, NUMPY,SCIKT-LEARN, POWER-BI, MYSQL, MANGODB