Chaitali Shirke

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Passionate CFD engineer with 5+ years of experience in CFD and 3+ years of experience in Data science . Passionate about building models that fix problems. Relevant skills include machine learning, problem solving, programming, and creative thinking.

Education

M Tech, *VJTI Mumbai* 07/2013 – 07/2015 | Mumbai, India
CGPI : 8.11

BE Mechanical, *Government college of Engineering Karad* 07/2008 – 07/2012 | Satara, India
Percentage : 67%

Organisations

Trane technologies India Ltd., *Associate consultant* 06/2021 – present | Bangalore, India

AI Variant, *Data Science Internship* 12/2021 – 05/2022 | Pune

Cummins India Ltd, *Thermal and fluid science Engineer Senior* 09/2015 – 01/2020 | Pune, India

Roles and Responsibilities

CFD Projects :

- Leading a technical team
- Guiding technical resources on different projects
- Present technical outcomes and results from CFD to internal customers and cross functional teams
- Leveraging/cascading the learnings from completed projects into new projects
- Scheduling projects and managing the workload in team
- Active involvement in tools and process development
- Involvement in global projects (UK, Wuxi, US) and having close interactions with Internal customers

DS projects :

- Involved in requirement gathering and Architecture design of the project for machine learning implementation.
- Working in collaboration with Product Managers to understand the challenges towards a product development.
- Participating in Data Pre-processing Techniques in order to make data useful.
- Parameter tuning process for optimal model hyperparameters.

Projects

1) To predict the power output of IC engine using ML methods. (Cummins India)

To predict and forecast the indicated mean effective pressure (IMEP) based on the machine learning (ML) approaches with the input parameters spark timing (ST), speed and load.

Technologies used : CFD, Machine learning, Python , Tableau.

2) To Predict Fuel Consumption based on Technical Parameters of Vehicles. (Cummins India)
The adopted research methodology is based on the use of artificial neural networks in order to create a predictive model on the basis of which fuel consumption of motor vehicles can be determined.

Technologies used : CFD, SQL, Deep learning (ANN), Python ,Keras, TensorFlow, Tableau.

3) Identification of sloshing noises using convolutional neural network. (Trane Technologies)
To develop convolutional neural network (CNN) based methodology for the identification of sloshing noises under different conditions of fill level, excitation, baffle configuration, etc.

Technologies used : CFD, Deep learning (CNN), Python ,Power BI.

4) Forecasting Internet Traffic Prediction (Internship)
The objective of this project is to forecast the Internet traffic using time-series models as ARIMA and Holt-Winters.

Technologies used : Machine learning, Python, streamlit, Power BI.

5) TV & AC - Fraud Warranty Claims Detection
The objective of the analysis is to predict an item when sold, what is the probability that customer would file fraudulent/ Genuine warranty and to understand important factors associated with them. (Link Here)

Technologies Used : Machine learning, Python, SMOTE , streamlit, Power BI.

6) Incident Impact Prediction (internship)
The objective of the analysis is to predict the impact of the incidents raised by the Customer.

Technology Used : Python, Machine learning, Power BI, Feature Engineering, streamlit.

Skills

- CFD
- Python
- SQL
- Machine learning
- Deep learning
- Tableau
- Power BI
- Statistics
- Creative Thinking
- Leadership

Certificates

- Data Science certificate (Excelr Solutions)
- Google Certified Data analatics