**Shubham Jain**

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Mobile :- 9043874159

**PROFESSIONAL SUMMARY:**

* 2 years of hands on experience in data science field and overall 4 years’ experience in Design and Development in Automotive Industry.
* Hands on experience in Data Preprocessing skills like data cleansing, removing anomalies, dealing with missing data & outliers using **python** and **Pandas** framework.
* Demonstrable experience in Data visualization using **Matplotlib, Plotly** packages.
* Knowledge of Data **Clustering** techniques like **K-Means, FCM** for grouping the vehicle data of different behaviors into sub-groups and **PCA,SVD** for **features extraction** using **Scikit-learn** framework.
* Familiar with the concepts of **Baselining** for comparing the Model Accuracies and Penalty Matrix for optimizing the Classifiers.
* Developed Predictive and Classification algorithm for data modelling using machine learning techniques like **Linear Regression ,Logistic regression, k-NN, Naive Bayes ,decision tree , SVM** and ensemble techniques like **Random Forest, Gradient Boosting,AdaBoost** .
* Basic understanding of the Mathematics (Linear algebra, Calculus) and Statistics (Descriptive, Inferential) behind machine learning algorithms.
* Good understanding of **Software Development Life Cycle** (SDLC) software process.
* Completed **Project Quality Analyst Training** in Bosch and basic hands on experience.
* Worked as a customer and application engineers interface for all technical clarifications.
* **Went to Suzhou(China) for 3 months Onsite support (Joint testing with Customer) to resolve noise bugs in vehicle and also to give technical presentation to improve HDC logic.**

**PROFESSIONAL EXPERIENCE:**

* Working as Data Scientist in Mercedes Benz Research and Development India Pvt. Ltd (Aug 2017- Present)
* Worked as Software Engineer in Robert Bosch Engineering and Business Solution Ltd.(Aug 2014- Aug 2017)

**IT EXPOSURE:**

Languages : Python,C

Technologies : Machine learning

Distributed Technologies : SciKit-learn,NumPy,Pandas

Databases : -

Development Environment : Matlab,Spyder

Web/Application Servers : -

**CERTIFICATIONS:**

* Certified From Udemy in ‘**Python for Data Science with Real Exercises’.**
* Certified From **DataCamp in ‘Data Scientist with Python Career Track’.**
* Completed ‘**Machine Learning ‘Course by Andrew Ng on Coursera**

**PROJECT PROFILE:**

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| Project – Vehicle Data Analysis and Predictive Modelling | Aug,17 - Till Date |
| **Client:** FUSO Trucks | |
| **Role**: Data Scientist Company Name :- Mercedes Benz R&D India | |
| **Environment:** Spyder, Matlab | |
| **Project Description**:  Requirement for this project is to extract the vehicle testing data and analyse it’s performance parameters like Battery capacity, power consumption w.r.t time. Using these analysis different POCs has been developed to improve current vehicle models with the help of Machine Learning techniques. SOC(state of charge), SOH(state of health) models of Battery management system has been upgraded to do online estimation(predicting the accurate health and capacity of battery in real times) .the pros of this model is eliminating the need of recalibration(which is cost effective) | |
| **Role Description**:   * Conversion and Refining of vehicle test data from blf format to Python dataframe format through mdfreader framework. * Analysis of Data through Pandas & Numpy frameworks and extracting the insights through Data visualization with the help of Seaborn, Plotly and Matplotlib packages. * Identifying the Number of clusters of data and it’s centers through K-Means algorithm and then Applying the FCM Clustering technique to partition the data. * Applying Ensemble learning on clustered data in by having both base and Meta Regressor as Multiple Regression and finally weighing the prediction of each models and later checking the accuracy of model with RMSE score. * Demonstration of inference of the data and Model’s prons to superiors with the Graphs and Charts visualizations. | |

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| Project – Classification of Good/Bad Credit Risk | Nov 2017 - Till Date |
| **Client:** German Credit Card Risk Identification | |
| **Role**: Data Scientist & Machine Learning Engineer Company Name :- UCI Repository | |
| **Environment:** Python ,Spyder & SciKit-learn | |
| **Project Description**:  The Goal of this project is to identify future loan applications into Good (likely to repay the loan) and Bad credit risk (Not likely to repay the loan) by using the applicant’s demographic and socio-economics profile to assess the risk of lending loan to customer. As business point of view, this Model tries to minimize the risk and maximize the profit for the bank. | |
| **Role Description**:   * Doing the Univariate and Multivariate analysis of dataset and finding out the feature which affects credit risk with the help of visualization techniques. * Performed statistical inference tests like Null Hypothesis on sample data set to check it’s validity effect on population data. * Performing the feature selection to avoid the situation of high variance (overfitting) in training data. * Baselining of the Model to compare the Model accuracy at the different stages of Tuning and Assigning the weightage * Training the Classifiers models like Logistic Regression, SVM, Naïve Byes, Random Forest and Ensemble learning with Grid Search Cross validation. * Checking the model Performance on test data with the use of Confusion matrix and ROC-AUC curve. | |
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| Project – ABS /ESP & BMS ECU | Aug 2014 – Aug 2017 |
| **Client:** General Motors & Daimler | |
| **Role**: Application Software Developer Company Name :- Robert Bosch& Mercedes | |
| **Environment:** ASCET, CANalyser, ETAS Labcar, MATLAB, MTC, SharCC, HP Quality Center | |
| **Project Description**:  This project is for the application software development of ABS, ESP (active safety braking) and BMS (battery management system) ECUs. The main objective of our ABS, ESP products would be to control the Vehicle Dynamics when the driver loses his control over the vehicle and gets back the vehicle under the driver’s control and BMS , it is responsible for to steer and control high voltage batteries of electric trucks. | |
| **Role Description**:   * Led the team of 4 colleagues for a Chinese OEM Project for a year and trained junior colleagues explaining about the functions algorithms and tools usage. * Analyzing the customer vehicle requirements and translating them into Function level requirements. * Preparing software design documents considering the impact of proposed change on existing system. * Involved in development of active safety and comfort functions using ASCET, MATLAB tool. * Also Performed unit testing, OOL simulation for Code level testing or Task verification. * Prepared Test Spec designs containing the test cases to be performed on Hardware level and Vehicle for request level verification. * Debugging of the software using MM6, Canalyzer tools. * Involved in meetings with customers and application engineers for tuning vehicle performance and explaining software bug fixes. | |

**ACADEMIC CREDINTIALS:**

Done B. Tech in Electrical and Electronic Engineering stream from **National Institute of Technology Tiruchirappalli.**

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| **Year** | **Education** | **Specialization** | **University** | **Percentage** |
| 2014 | B.Tech | Electrical & Electronics | NIT Trichy | 80.4% |
| 2009 | 12th | PCM | CBSE | 76% |
| 2007 | 10th | Science & Maths | CBSE | 75% |

**PERSONAL DETAILS:**

Date of Birth : **22-07-1993**

Gender : Male

Marital Status : Single

Nationality : INDIAN

Languages known : English, Hindi

Present Address : Flat #0A9 Isha Misty Green Apartments, Chanassandra Whitefield

Bangalore-560066

**DECLARATION**

I hereby declare that the information furnished above is true to the best of my Knowledge and belief.

Place: **Bangalore** **Shubham Jain**