

# Sachin Dhavane

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## CAREER OBJECTIVE

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A keen individual looking for the role in the field of Data Science and Machine Learning. Committed & Excited to explore the Data-Driven fields and implement the Data-Driven solutions to Complex and Diverse Business Issues. Looking forward to adding value to the organization while being Ingenious and Flexible.

## PROFILE SUMMARY

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- **Total around 9 Years of Experience.**
- **Around 5+ Years of relevant Experience in Machine Learning and Data Science Domain with Python.**
- Conversant with working on **Google Cloud Platform (Vertex AI), AWS (S3 & EC2)**
- Good understanding of **Statistical, Machine Learning, Forecasting** Techniques.
- Proficient in **Python and SQL**.
- Good Exposure to the Data Visualization Tools like **Power-BI**
- Used **Flask** framework for **deployment** on **Google App Engine**
- Working Knowledge of **GIT and AGILE Methodology**.
- Excellent interpersonal, communication and collaboration skills.

## WORK EXPERIENCE

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### 1. Tata Technologies Ltd

Pune, India

**Designation:** Technical Lead (AI & ML Engineering)

Feb 2023 to June 2023

**Client:** Tata Motors Ltd

#### My Responsibilities:

- . \* Responsible for the development and deployment of end-to-end AI-ML projects for Passenger Vehicles.
- \* Development of ML Solutions based on Classical ML Algorithms and Deep Learning Techniques for Automotive Domain.

### 2. Publicis Re: Sources (A Publicis Groupe Company)

Bangalore, India

**Designation :** Sr. Associate Technology

Oct 2022 to Feb 2023

**Client:** Profitero, is a leading SaaS global **Ecommerce Intelligence Platform** helping brands accelerate commerce sales and profitability.

#### My Responsibilities:

#### Role: Data Scientist

- . \* Actively involved in performing Investigations on e-commerce data by SQL on DBeaver.
- \* Participation in Daily Refinements processes with Product Owners
- \* Continuous Development of Complex pipelines for E-Commerce Business issues.
- \* End to End Deployment of the ML Algorithms with Python on GCP.

### 3. MIT Academy of Engineering

Pune, India

Designation: AP - ML Researcher

Jun 2016 – Sept 2022

Role: Researcher

July 2018 – Sept 2022

\* Associated with the Proof of Concept (PoC) projects based on **ML Algorithms** as per data provided.

\* Involved in performing Investigations on Business data by **SQL** for Insights gathering.

\* Performing **Descriptive Analysis, Predictive and Perspective Analysis with Python** for the Business use-cases.

Role: Delivered Research Methodology Statistics for Engineering, Python, SQL, Machine Design.

June 2016 – June 2018

### 4. Sinhagad Institute of Technology

Pune, India

Designation: Assistant Professor in Engineering

Jun 2014 – June 2016

## EDUCATION

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**Master of Engineering (Mechanical Engineering)**  
**Pune University, Grade: First Class**

Pune, Maharashtra.  
July 2011-May 2014

The Project Depicted the Effect of Heat Treatments on Wear Characteristics of the Tool Steel. **Regression Analysis** was performed by **Minitab 16 Software**. The Wear Rate vs Load and Speed regression equations were developed to predict the wear rate for Tool Steel Combinations. The **Analysis of variance** was performed between Experimental Wear rate calculated and Predicted Wear rate. The mathematical Equation of regressions was true giving **R-Sq** as 96% for HCT Specimen.

**Bachelor of Engineering (Mechanical Engineering)**  
**Pune University, Grade: First Class**

Pune, Maharashtra.  
July 2006 - Aug 2010

## TECHNICAL SKILLS

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**Project Management Platforms:** Jira , Confluence

**Languages:** Python, SQL

**IDE:** Jupiter, PyCharm, Google Colab

**Frameworks:** Flask

**Libraries:** Matplotlib, Seaborn, Scikit-learn, Pandas, NumPy

**Visualization Tools:** Power BI

**Statistics:** Descriptive and Inferential Statistics, Statistical Analysis

**Classical ML Algorithms:** Regression, Classification, Clustering

**Deep Learning Techniques:** Artificial Neural Networks (ANN) & Convolutional Neural Network (CNN), TensorFlow

**Natural Language Processing:** Natural Language Toolkit (NLTK)

**Others:** Web-scraping, OpenCV

## PROJECTS

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**Company:** Tata Technologies | **Tata Motors Ltd** | **Domain:** Automotive | **Tech Stack:** Python, ML

**Project 1 – Virtual Tire Pressure Monitoring System**

- **Description:** To develop a Zero Direct Material Cost (DMC) solution for the passenger vehicles. Development of Virtual TPMS in place of actual Tire pressure monitoring system
- **Responsibilities Handled:**
  1. Deciding the Data Collection conditions and collecting the Data on passenger vehicles.
  2. Development of the algorithm based on Neural Networks based on Vehicle CAN data.
  3. Deployment on Edge Devices and Supported in UI Development.

## Project 2– Pothole Detection System

- **Description:** To detect the pothole on the roads.
- **Responsibilities Handled:**
  1. Deciding the Data Collection conditions and collecting the Data on Vehicles.
  2. Development of the algorithm.
  3. Handling AWS Platform for Data Storage and Google Map Integration.

**Company:** Publicis Re:Sources | **Domain:** E-Commerce Analytics | **Tech Stack:** Python, ML, ETL, DBeaver

## Project 1 – Forecasting of Sales for Client L'Oréal

- **Description:** L'Oréal has a variety of products in different categories. The sales forecasts were requirement as compared to competitors' products in similar categories.
- **Responsibilities Handled:**
  1. Performed Investigations on **L'Oréal all domain product data**.
  2. Delivered the Forecast of the Category Sales by the **Holt-Winters Model**.
  3. Selection of Appropriate Model by Comparative Analysis of the data by different Forecasting Models Facebook Prophet Vs ARIMA Vs Holt-Winters.

## Project 2– Prediction of Customer Churn Behavior | Tech Stack: Python, ML, ETL, SQL

- **Description: Reducing the Customer Churn Rate through Analytics.**

Identification and Prediction of Churn & No Churn Behavior of the customers for the telecom service provider. Understanding the factors influencing the churn probability at individual customer and at segment level. Proposition of a customized customer engagement model through relevant and timely recommendations to avoid the customer churn.
- **Responsibilities Handled:**
  1. Development of the Required Pipelines for the said use-case.
  2. Development of SQL scripts for ETL processes.
  3. Analysis for the Model Selection (Random Forest Classifier, Decision Tree, Logistic Regression)
  4. Development by using python code modules.
  5. Assisted the Deployment on GCP platform.

## Project 3 – Customer Segmentation in E-Commerce Domain | Tech Stack: Python, ML, SQL

- **Description:** Customer segmentation by RFM Analysis to understand the Customer Behavior. This Project aims for clustering of customer into groups.
- **Responsibilities Handled:**
  1. Exploratory Data Analysis for the data acquired.
  2. Detailed understanding and implementation of Recency-Frequency-Monetary (RFM) Analysis.
  3. Analysis for the Model Selection (K-Means Clustering)
  4. Customer Segmentation by RFM model.

## OTHER PROJECTS

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**Domain: Research - POC Projects | Tech Stack: Python, ML**

- Applied **Support Vector Machine Classifier** for the Disease prediction on Indian Diabetes Patient Data. **Deployed** the trained model by Using **Streamlit** (open-source app framework).
- Performed **Clustering (K-Means)** for the Customer Segmentation of the Supermarkets.
- Predicted Medical Insurance Cost by using the **Linear Regression Model**.
- Predicted the Potential Customers for buying the SUVs by Classification Models like **Logistic Regression, SVM, K-Nearest Neighbors, Decision Tree and Random Forest Classification**. Implemented Hyperparameter tuning by tools such as **GridSearchCV**.
- Sales Prediction by **XG Boost Regressor**
- **Breast Cancer Classification** with feedforward Neural Networks.
- Sentiment Analysis of the Restaurants by NLP.

### Computer Vision Projects:

- **Image Classification** of Clothes for an Apparel Store by **Open CV**.
- **Object Detection** of Automobiles by **OpenCV**

## CERTIFICATION COURSES

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Foundations of Data Science from One Fourth lab (IIT Madras Incubated Company)

Deep Learning from One Fourth lab (IIT Madras Incubated Company)

Machine Learning A-Z™: Hands-On Python and R In Data Science from Udemy

SQL For Data Science from Coursera

The Complete Python Course by Mosh Hamedani [Coding with Mosh]

Microsoft Power BI Desktop for Business Intelligence from Udemy (In Progress)

## DECLARATION

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I hereby declare that the above provided information is correct to the best of my knowledge and belief.

Sachin Parvat Dhavane