

Data Analytics Solutions

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Overview

We provide **Data Analytics as a Service (DaaS)** for making data-driven decisions. We have a range of statistical **SaaS (Software as a Service)** tools **deployed on a cloud platform** to perform complex **machine learning tasks** on **multivariate data**.



Data Analytics as a Service (DaaS)

We develop customized data analytics solutions for solving your data analytics problems. Everything is customized to your needs based on user specifications defined by you!

Some of these applications include:

- Customized dashboard development
- Real-time data projections for monitoring trends
- Customized data processing tools
- Customized data import/Export tools

Software as a Service (SaaS)

Use Case

These standard machine learning approaches have long been used in chemometrics, genomics, metabolomics, and even in econometrics. Therefore, its applications also extend to

- Life Sciences Industry (Pharmaceutical, Biotech, and Medical device)
- Food and Beverages Industry
- Agricultural Industry
- Defence Industry
- Chemical Industry
- Earth and Space Research
- Business Intelligence

Advantages

- Extremely user-friendly and intuitive
- Builds model in just a few clicks and seconds
- Possibility to change modeling options and review model outcomes dynamically
- Large data handling capabilities
- Can be accessed from anywhere in the world (Not specific to a desktop/laptop)
- Upgrades rolling all over the year without additional charges
- Feature requests accepted and rolled over throughout the year
- Fair and subscription-based model with no additional maintenance charge

Details

- Data Import: Currently it imports .CSV files. More import options can be built on demand.
- Data Partition: Divides data into train and test sets automatically (user can change data split dynamically).
- Displays model summary.
- Comes with an option to save the model. We have already developed some standard statistical tools which can be accessed in the form of web applications on our website datapandit.in. These applications include
- Principal Component Analysis (PCA) and SIMCA

- Principal Component Regression (PCR)
- Partial Least Square Regression (PLS)
- Multiple Linear Regression (MLR)
- Linear Discriminant Analysis (LDA)
- Comes with an option to predict unknown data for future forecasting.
- A summary of the remaining specifications is provided in Table 1.

Table 1: Summary of detailed specifications

	PCA + SIMCA	PCR	PLS	MLR	LDA
Data Pretreatment	<ul style="list-style-type: none"> • Mean Centring • Scaling • Advanced spectroscopic data treatments such as SNV, MSC, Base line correction, Normalization and Savitzky Golay • Missing data pretreatments 	<ul style="list-style-type: none"> • Mean Centring • Scaling 	<ul style="list-style-type: none"> • Mean Centring • Scaling 	<ul style="list-style-type: none"> • Mean Centring • Scaling 	<ul style="list-style-type: none"> • Mean Centring • Scaling
Plots	<ul style="list-style-type: none"> • Box plot: raw and treated data • Spectra: raw and treated data • Correlation matrix • PCA summary • Scores plot • Loadings plot • Biplot • SIMCA plot 	<ul style="list-style-type: none"> • Box plot raw data • Spectra raw data • Correlation matrix • Scores • Loadings • Validation : RMSEP • Validation: R² • Predicted Vs. Actual 	<ul style="list-style-type: none"> • Box plot raw data • Spectra raw data • Correlation matrix • Scores • Loadings • Validation : RMSEP • Validation: R² • Predicted Vs. Actual 	<ul style="list-style-type: none"> • Box plot raw data • Spectra raw data • Correlation matrix • Model assumptions plot 	<ul style="list-style-type: none"> • Box plot raw data • Spectra raw data • Correlation matrix • Partition plot • LDA plot • Biplot
Calculates	Based on variable section in sidelayout	By clicking on bottom header of response variable	By clicking on bottom header of response variable	Based on variable section in sidelayout	Based on variable section in sidelayout