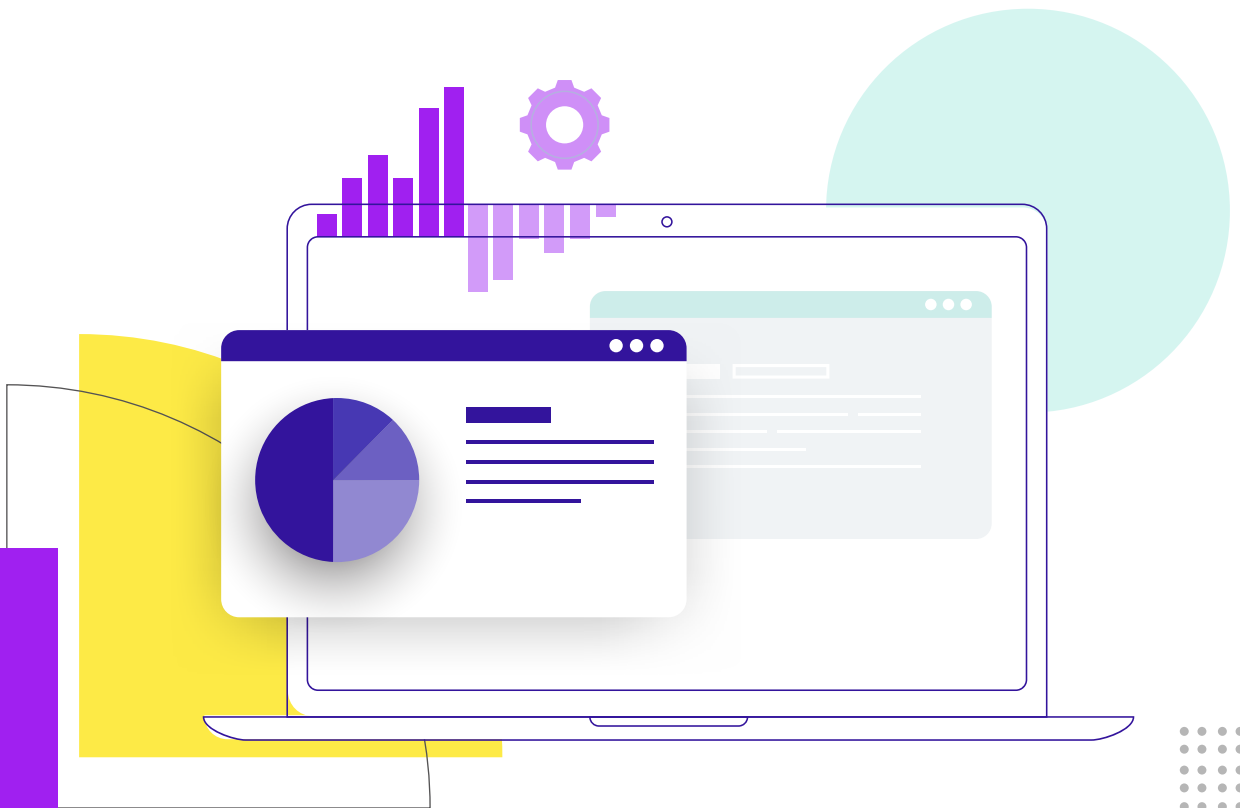
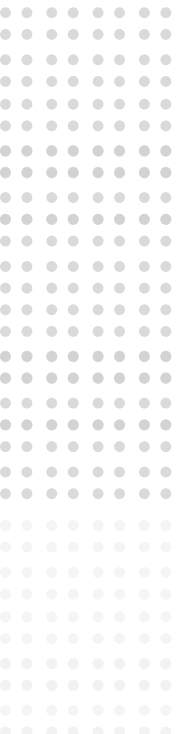


HYPERSENSE AI DATA SHEET



INTRODUCTION

Your Path to End-to-End AI Orchestration

Companies of any size or industry must use data to consistently produce more innovative products to succeed in the world's rapidly evolving ecosystem. This can be achieved by using the capabilities of Artificial Intelligence (AI) to enhance the productivity and speed of the task at hand.

HyperSense AI is **Subex's** AI-first no-code platform to enable end-to-end AI automation. Citizen Data scientists use HyperSense to create AI/ML use cases with drag-and-drop functionality.

Key Features of HyperSense AI



Pre-build ML pipelines for faster experiments.



Industry First End-to-End Automation of ML lifecycle using AutoML.



Industry best Interactive ML for custom ML through No-Code AI.



Iterate experiments with 100+ operators.



Quickly learn from data through integrated Visual Analytics for quick insights.



Build transparent & trustworthy models using out-of-box explainability and Bias detection.



MLOps for End-to-End model management.

CONNECTIVITY



HyperSense AI enables data transformation and machine learning infrastructure for all data types. HyperSense AI democratizes AI for all users in an organization.

Databases

PostgreSQL

Splunk

File Formats

CSV

DSV

Parquet

ORC

Hive

Cloud Object Storage

Amazon S3

Amazon S3 Presto

Google Cloud Storage

Google Cloud Storage Trino

Google Cloud Storage External- Table Sink

Azure Blob Storage

Azure Data Lake Store Gen1 & Gen2

Remote Data Source

HTTP

SFTP/FTP

Streaming Data Base

Kafka

Spark

DATA ANALYSIS & INSIGHT MINING



For deep diving into data, HyperSense AI helps to analyze and visualize data, from managing datasets to dashboarding.

Auto Exploratory Data Analysis

- ◆ Automatically detect data types
- ◆ Build univariate statistics automatically

Time Series

- ◆ Time series visualization
- ◆ Time series forecasting

Data Visualization

- ◆ Creation of standard charts like bar charts, histogram etc.
- ◆ Scale charts' computation by leveraging underlying systems
- ◆ Support different types of Chart Visualization

Bar Chart

Pie Chart

Line Chart

Area Chart

Donut Chart

Heat Map

Street Map

Text Chart

Table Chart

Multi Value Chart

Tile Chart

Filter Chart

Pivot Table

- ◆ Support different types of Group Charts

Group Bar

Group Bar Line

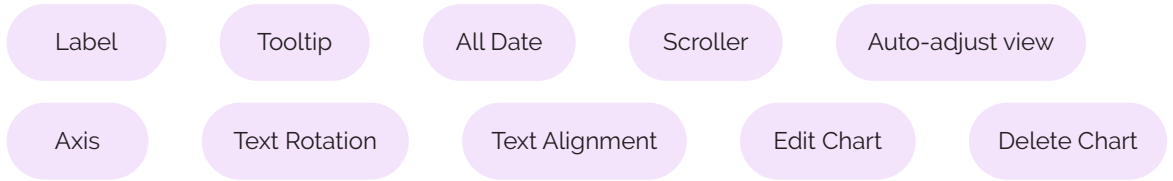
Multi-line

Line and Area

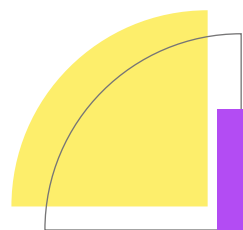
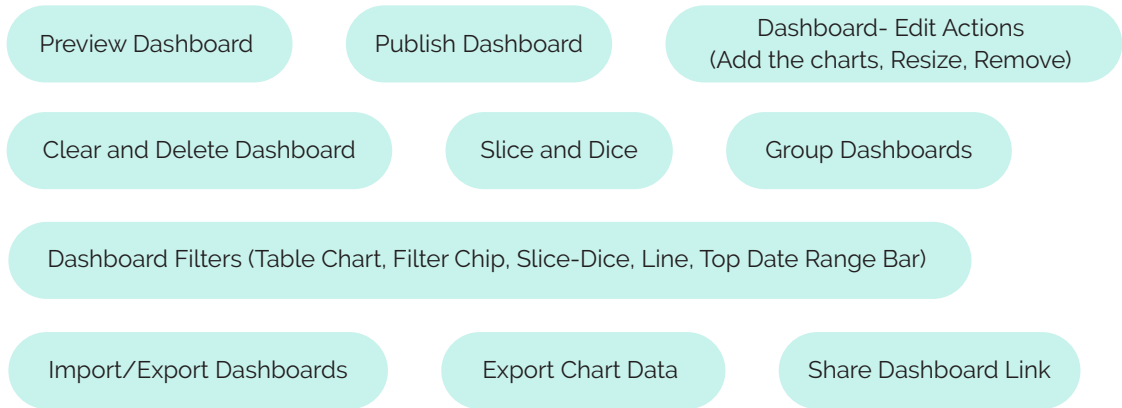
Radial Bar

Multi Bar

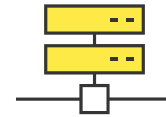
◆ Support various chart properties



◆ Support various Dashboard Properties



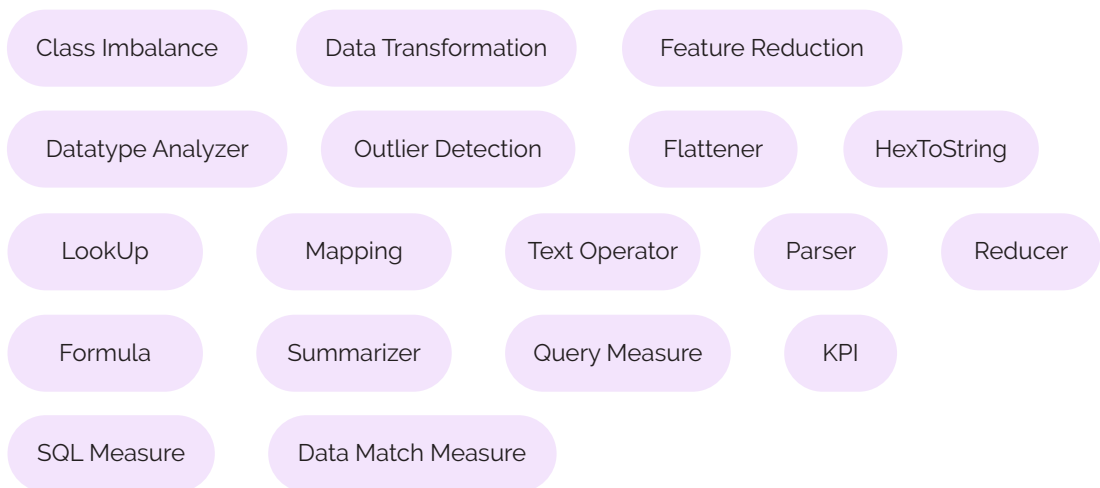
DATA PREPARATION



80% of the effort is spent on data preparation for building any model. HyperSense AI data preparation features simplify this time-consuming process to create a more robust model.

Visual Data Transformation

- ◆ Design data transformation jobs using a drag and drop workflow
- ◆ Data Parsers(Hash, Summarizer, ASCII)
- ◆ Multiple functions in data transformations (Filter, join, concatenate, flattener, text operator)

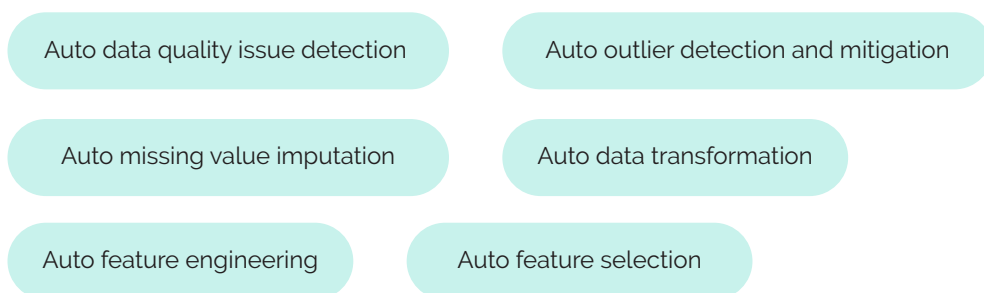


Sampling

- ◆ Linear sampling, random selection, stratified sampling etc.

Auto Data Preparation

- ◆ Automatically turn data preparation into a one step process



MACHINE LEARNING



HyperSense AI simplifies ML so that data scientists can focus on building and optimizing the model for various use cases.

Automated Machine Learning (Auto ML)

◆ Automated ML strategies

Interpretable models

High performance

◆ Features handling for ML

Automatic preprocessing of categorical features (encoding)

Automatic preprocessing of numerical features (normalization)

Several missing values imputation strategies

◆ Algorithms

Ridge Regression

Lasso Regression

Logistic Regression

Random Forest

Gradient Boosting

XG Boost

Decision Tree

Support Vector Machine

K Nearest Neighbors

Extra Tree

Multi-Layer Perceptron

Light GBM (scikit-learn compatible API's)

Naïve Bayes

Unsupervised Learning

- ◆ Automated feature engineering
- ◆ Dimensionality reduction
- ◆ Algorithms

K-Means

Agglomerative Clustering

Spectral Clustering

DBSCAN

Isolation Forest (Anomaly Detection)

- ◆ Hyperparameters optimization

Set and search hyperparameters

Cross validation strategies

- Support for several train/test splitting methods
- K-fold cross testing
- Optimize model tuning on various metrics like MAPE, MAE, MSE, Accuracy, F1 Score, AUC etc.

- ◆ Model training results' analysis

Get insights from the model

Scored data

Feature importance

Model parameters

Partial dependence plots

Regression coefficients

Audit model performance

Confusion matrix

Lift chart

ROC curve

Detailed metrics (Accuracy, F1 Score, ROC-AUC Score, MAE, RMSE etc.)

- ◆ Automatically create ensemble from various models

Linear stacking (for regression models) or logistic stacking (for classification models)

Majority Voting (for classification models)

Prediction averaging or median (for regression models)

Model Deployment

- ◆ Batch scoring
- ◆ Real-time scoring through Rest API's
- ◆ One-click deployment of models for easier management
- ◆ Docker & Kubernetes

Deploy models into Docker containers for operationalization

Automatically push images to Kubernetes clusters for high scalability

Works with Spark on Kubernetes

- ◆ Model monitoring

Data Quality Monitors

Model Quality Monitors

Data Drift Monitors

Bias Detection Monitors

- ◆ Business App creation

Auto model report generation

Auto review and approval

Inbuild typing tools

- ◆ Alert configuration

Email Alerts

Model Explainability

Global explainability

Local explainability

What-if analysis

Counter factual Analysis

Responsible AI & Ethics

Bias detection

Bias mitigation*

AI Security measurement & Mitigation*

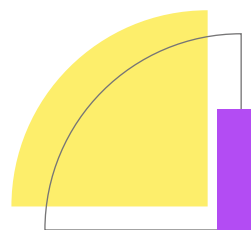
Trust measurement & diagnostics

Model contract for compliance approval

Factsheet for AI governance

Custom Code

- ◆ Write custom Python codes to build a model.





Email / SMS integration for user notifications

Setting up Business rules and workflows

User Management

- ◆ Accessing User Management
- ◆ Creating Users and User Groups

Creating New User

Creating New User Group

- ◆ Viewing the Users and User Groups

Viewing Users

Viewing User Groups

- ◆ Role Based Authorization

Common Settings

- ◆ Email Configuration
- ◆ Date & Time Settings

Process Creation & Automation

- ◆ Create a Case

Case templates

- ◆ Workstep Configurations

Creating Workstep

Configuring allocation of case to users and teams

Workstep Duration to configure the duration to be escalated to the next level

Investigation Cards

Investigation Data Capture

- ◆ Case Investigation

Case Investigation

Case Timeline

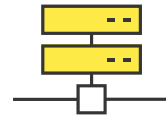
Clipboard

Control Points

- ◆ Accessing Control Points
- ◆ Accessing Data Trend Graphs
- ◆ Control Points Details
- ◆ Configure Grid
- ◆ Color Rules

06

DATA GOVERNANCE



Data Catalog and Audit Trail

- ◆ Table Instance
- ◆ Configure Grid to perform the settings required for the Table Instance to be visualized
- ◆ Color Rules for any table instance for the better visualization of data
- ◆ Audit Trail to view the logs of the action performed.

07

GOVERNANCE & SECURITY



- ◆ Compliant with GDPR and PCI-DSS standards to protect personal data and privacy of EU citizens.
- ◆ Two-factor authentication (2FA) protects the user's credentials and the resources the user can access.
- ◆ Encryption Standards: AES (Data at rest), RSA (Data in Motion)



About HyperSense AI

HyperSense is an AI Orchestration platform that helps enterprises operationalize AI enabling scalability and growth. It gives you the AI automation capabilities to build, test, deploy, and operationalize AI models in minutes. It is a no-code platform with an intuitive drag-and-drop framework that makes AI/ML accessible to various organizational stakeholders and empowers them to become citizen data scientists. You can get lightning-fast insights, predict outcomes accurately, automate complex workflows, optimize operations, and discover new business opportunities. With HyperSense AI, you can work faster, smarter, and better.

HyperSense AI Capabilities



Ideate

Let enterprises design, explore, and validate business problems to find appropriate solutions.



Create

Collect data from multiple sources, databases, and business functions to build, deploy, and scale AI in minutes without coding.



Operationalize

Create complex business rules and quickly deploy AI-critical processes that convert data into actionable insights in real time.



Innovate

Let businesses continuously investigate, collaborate, and drive innovations based-on model insights.

For more information email hypersense@subex.com or visit, www.hypersense.subex.com