LTI
Let's Solve

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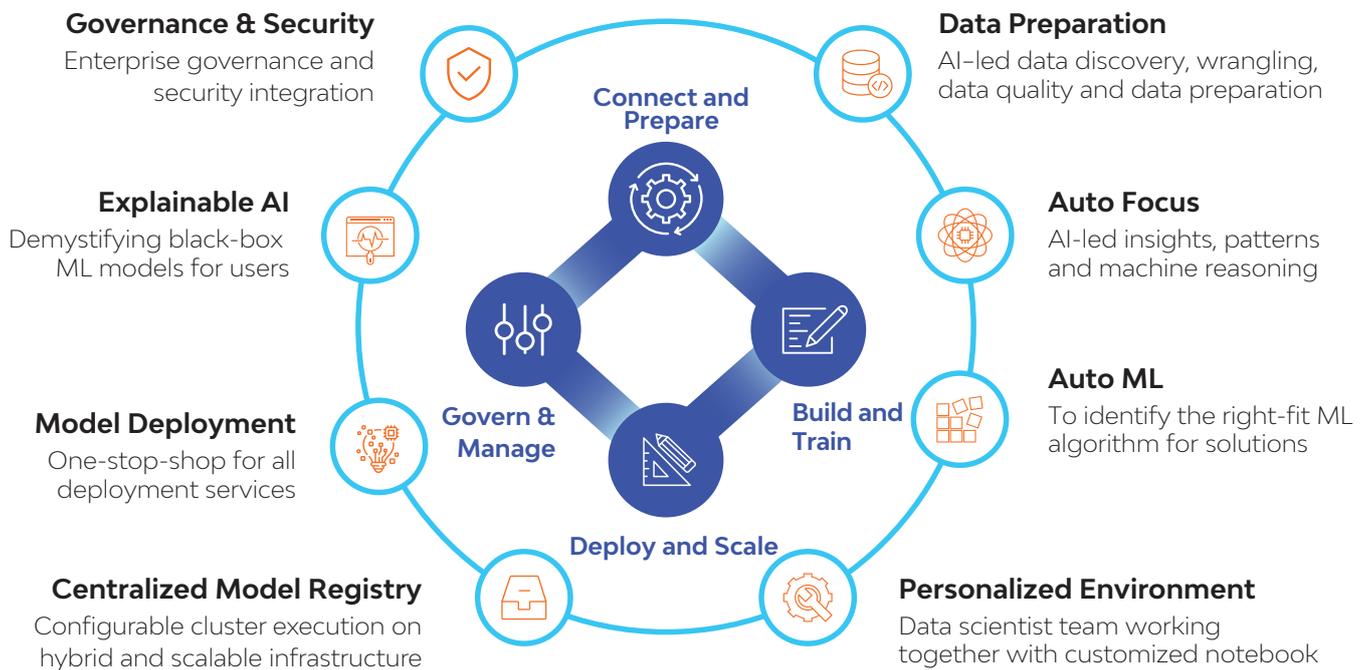
Operationalize
Artificial Intelligence @ Scale

Platform to operationalize and manage enterprise machine learning & artificial intelligence model, helping data engineers and scientists automate the ML/AI Design Lifecycle.

#DataWrangling #BusinessRules #AssistedAnalytics

Faster Development to Deployment of ML & AI Models

LTI's Mosaic AI is a self-served unified analytics platform aimed at automating the ML/AI life cycle to build, train, deploy, and manage AI models at enterprise scale. Mosaic AI provides an abstraction for machine learning DevOps so that data scientists can focus on AI model development and not worry about operationalizing the models. The platform provides Containerized and Reproducible Notebooks/Toolkits, easing the building to performance monitoring of complex models, democratizing AI.

Salient Features

Governance & Security
Enterprise governance and security integration

Explainable AI
Demystifying black-box ML models for users

Model Deployment
One-stop-shop for all deployment services

Centralized Model Registry
Configurable cluster execution on hybrid and scalable infrastructure

Connect and Prepare

Govern & Manage

Build and Train

Deploy and Scale

Data Preparation
AI–led data discovery, wrangling, data quality and data preparation

Auto Focus
AI-led insights, patterns and machine reasoning

Auto ML
To identify the right-fit ML algorithm for solutions

Personalized Environment
Data scientist team working together with customized notebook

Product Features – Data Prep | Build | Train Deploy | Auto Focus | Run | Govern | Support

Lens: Data Prep
An AI-assisted, point-and-click ability to expedite data preparation and accelerate discovery of insights, overcoming the traditional limitations.

Intuitive Wrangling	Easy data wrangling with a simple no-code and intuitive interface. Simplified data harmonization and data enrichment with in-built sampling techniques, AI-assisted data quality checks, auto-feature generation, anomaly detection etc.
Pre-built Data Processing Steps	Extensive library for processing all structured, semi and unstructured data. Filter and search on data made simple; history of saved searches stored for instant results.
Data Profiling	Auto schema and data format detection – with a quick view of data at every step of wrangling. Automated data-profile-assist to highlight qualitative features such as distribution, value frequencies, missing/unique values etc.
Assisted Data Quality	Data quality indicators and metrics such as validity, completeness, consistency etc. for users to explore the usability of data. Intelligent recommendations for potential data enrichment at each step.
Functions Library	Robust library of 200+ pre-built functions to accelerate data preparation.

Build & Collaborate
Multiple users accessing and co-building the ML model codes and algorithms using the same notebooks or multiple notebooks

Data Connection Library	Collate data from varied sources using connector libraries embedded within the platform
Personalized Notebooks	Notebooks with prebuilt ML libraries and customized with choice of libraries or custom code
Containerized Notebooks	Notebooks with configured container size allows to allocate resources dynamically upon initiation
Share Notebook across developers	Collaborate by sharing customized images, registered models & services

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Register & Train

Register & train ML models via GUI or directly from notebook using pre-built Mosaic AI libraries

Model Registry	Register ML/ AI models using graphic user interface or from notebooks using pre-built mosaic libraries
Bring Your Own Code (BYOC) & register	Models built outside the Mosaic platform can be registered using the prebuilt integrated mosaic libraries
Automated ML Development Module	AutoML to identify the right-fit algorithm for the solutions implemented with Dashboards for Model Status Visibility easing the model creation
Lineage & Versioning	Manage all trained models in one place, with different versions and lineage of each version back to source code, training logs and training summary
Multiple Model Development Options	Model Creation on R Studio, Apache Spark, VSCode, RStudio, Jupyterlab and others besides the previous toolkits Jupyter and Zeppelin
Visual ML/AI Building & Optimization	UI-based design and ML workspace with a centrally managed enterprise platform. Provision to compare multiple algorithms for supervised/unsupervised training. Instant assessment and management of model's performance through detailed metrices.

Deploy & Consume

One-stop-shop to package and deploy ML / AI models of various frameworks, languages as a webservice.

Integrated library to Package & Deploy models	Mosaic libraries integrated within notebooks to package and deploy any model as a webservice.
Hybrid Deployment	All deployment services to package and deploy any model version on highly scalable and secure
Change Management	Mange all model versions of registered and deployed models on the platform. Track source code versions with direct integration of notebooks with GIT.
Secure & Scalable API	Trained models are registered and packaged and deployed as web service on K8s clusters.
Consumption Management	Manage model instrumentation / metrics such as – Invocation matrix, accuracy matrix, version matrix, AB matrix, scoring matrix.

Auto Focus
AI-led trustable auto-insights across all data

Autonomous Insights Generation	Rapidly uncover patterns, segments, advance profile, intelligent data type, anomalies, and insights across the data. Analyze data proactively using advanced algorithms.
Outliers and Anomalies	Automatically discover various anomalies and outliers within the data -using identified important attributes affecting specific KPIs.
Machine Reasoning in Natural Language	Leverage narrative engine to interpret the findings in data and provide natural language explanations.
What-if Simulations	Discover key attributes affecting the KPI. Explore what-if simulations to decide next best business actions.
Signals & Alerts	Manage all trained models in one place, with versioning and lineage of each version back to source code, training logs and training summary.

Environment & Governance
Govern, manage and monitor the enterprise ML / AI model portfolios.

Set up & Manage Hybrid Environment	Install the framework on a K8 cluster onto any cloud or on-premise infrastructure.
GPU Support	Execute and train deep learning models using GPUs cores and hardware.
Auto Scaling	Models registered on the platform are deployed on highly scalable K8s clusters.
SModel Access	Fine grained access control on models and integration with enterprise LDAP / AD to manage users, user groups, user attributes, roles and actions.
GIT Integration	Captures every change and code version to GIT allowing the users to revisit the version history or revert to any previous versions as needed.
Visibility Of Model Lineage	Automatic tracking of ML lifecycle allows users to track and have complete visibility across ML/AI Model Portfolio
Explainable AI	Dashboards that allow users to understand black-box ML models
Data & Catalog	Discovery engine with faceted search to explore data. Manages availability, usability, integrity and security of data & analysis within enterprise.

Runtimes, Frameworks & Extensibility

Integration with various ML programming languages and frameworks

ML Runtimes

Support for ML programming languages

ML Frameworks

Support for ever-evolving ML frameworks for ML and deep learning model development

Bring Your Own Model (BYOM)

Automated ML or the R or Python codes can be converted into an app allowing to bring-your-own-model to register and deploy ML/AI models on the platform
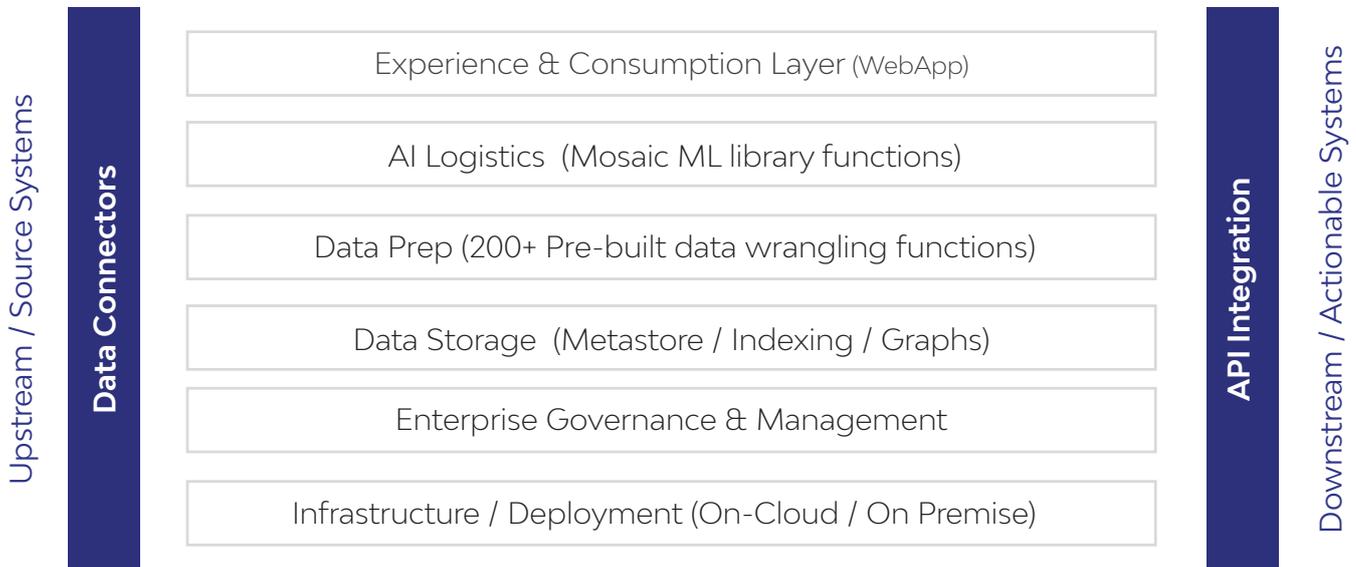
Support

24X7 Platform Support with defined SLAs

Bug Support

Free 24 x 7 support to resolve platform bugs and issues.

Upgrades

Free and planned platform flavor upgrades.

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Product Architecture

Upstream / Source Systems

Data Connectors

- Experience & Consumption Layer (WebApp)
- AI Logistics (Mosaic ML library functions)
- Data Prep (200+ Pre-built data wrangling functions)
- Data Storage (Metastore / Indexing / Graphs)
- Enterprise Governance & Management
- Infrastructure / Deployment (On-Cloud / On Premise)

API Integration

Downstream / Actionable Systems

Deployment Options

Flexibly deploy on cloud or on-premises

aws	Azure	Google Cloud	On-premise

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Operationalize Artificial Intelligence @Scale

Request a Demo @ https://mosaic.lntinfotech.com/

LTI (NSE: LTI) is a global technology consulting and digital solutions Company helping more than 460 clients succeed in a converging world. With operations in 33 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI's Mosaic platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivalled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 40,000 LTItes enable our clients to improve the effectiveness of their business and technology operations and deliver value to their customers, employees and shareholders. Find more at http://www.Lntinfotech.com or follow us at @LTI_Global.

info@Lntinfotech.com

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