

PACE-ML

MLOps Platform for Accelerated Enterprise AI @ Scale

Development and deployment of Machine Learning (ML) models involves collaboration between data scientists, data engineers, ML engineers, business users and developers and their aim is to build, deploy and monitor ML models efficiently in production environments at scale. In enterprises, business users want effective business decisions, improved productivity and accelerated time-to-market, data scientists look to platforms and tools that enable them to create, deploy and reuse models and features to create effective baselines and monitor data and model-performance, data engineers are looking for tools for data augmentation, data cleaning pipelines and reusable components for data management and machine learning engineers want standard pipelines from model to production. Mphasis PACE-ML platform empowers data science stakeholders to bring ML models to production faster and at scale and accelerates the life cycle of development, deployment and monitoring of ML algorithms. PACE-ML improves the efficiency and streamline the management of model selection, reproducibility, versioning, auditability, explainability, packaging, re-usability, validation, deployment & monitoring.

Mphasis PACE-ML - Enterprise AI @ Scale

Mphasis PACE-ML platform enables end-to-end machine learning development and deployment using MLOps principles. It is an end-to-end platform to automate multiple stages in the ML pipeline. The objective of the platform is to accelerate the life cycle of machine learning development, deployment and monitoring of ML algorithms. It is a foundational platform that integrates MLOps, Responsible AI and Model Hub to address enterprise challenges such as customer intelligence, risk intelligence, operations intelligence and knowledge intelligence. PACE-ML is a combination of Mphasis' proprietary tools and methodologies along with the best-in-class third-party as well as open-source tools.

PACE-ML Platform Features

Mphasis PACE-ML enables innovation and democratization of AI through the following features:

Standardized frameworks and checklists for ML Assessment guestionnaires and MLOps project set-up guidelines.

Collaboration frameworks & infrastructure for data, code and model versioning, experiment tracking, standardized notebooks for collaboration and model hubs.

Automated pipelines for code checking, unit testing, containerization, model deployments and retraining pipelines.

Workflow orchestration enables developers and teams to build pipelines after arriving at production grade code.

Modules for automated data preparation including data imputation, missing values, normalization, encoding, profiling and augmentation.

Model hub comes pre-loaded with 150 plus machine learning and deep learning algorithms and models.

Modules for feature engineering including feature interactions, polynomial features, grouping and binning features.

Feature store acts as a central repository for creating and hosting features which can be served to models or used for model training.

AutoML for comparing best models for regression, classification and clustering, and for hyperparameter tuning.

Deployment pipelines for containerization and orchestration.

Monitoring for drift check APIs, explainability APIs, infrastructure tracking dashboard and model monitoring dashboard.

Responsible AI components include global and local explanation, bias identification and mitigation, model fairness, accuracy trade-off analysis and auditability.

Delivering Differentiated Value and Benefits

With its acceleration of the ML life cycle, PACE-ML delivers the following value to enterprises:

Improved user experience

Mphasis PACE-ML improves the experience for data engineers, data scientists, model engineers and ML scientists during the ML development and monitoring processes.

Faster time-to-market at reduced cost

With 150+ pre-trained models covering horizontal and industry use cases, Mphasis PACE-ML reduces the cost and time-to-market of products and services. With its one touch deployment, it enables faster turnaround time and improves TAT by up to 80%.

among teams The increased ability to track models, code and data changes increases

collaboration among teams.

8 Increased collaboration



Automated efficiency

Automated model pipeline management in Mphasis PACE-ML reduces manual interventions. decreases time for deployment and enables continuous delivery.



Efficient audit trails, automated checks and monitoring and enhanced collaboration of stakeholders enables better governance, lesser rework and quality issues. Mphasis PACE-ML's model explainability and meticulous compliance results in reduced risks. Additionally, drift detection prevents model performance degradation.

Success Stories

Intelligent Demand Forecasting with Automated Model Selection

Mphasis enabled a large US-based pharma company to boost forecast accuracy from 45% to 70% through deployment of MLOps in SKU categorization, time series forecasting and Machine Learning models.

Enhancing Due Diligence

Mphasis enabled a major consulting firm by implementing pipelines for automatic model selection and deployment, which reduced 75-80% of manual effort in creating Due Diligence reports. The client could expand the generation of the due diligence reports in parallel across several industry domains in significantly less time.

About Mphasis

Mphasis (BSE: 526299; NSE: MPHASIS) applies next-generation technology to help enterprises transform businesses globally. Customer centricity is foundational to Mphasis and is reflected in the Mphasis' Front2Back[™] Transformation approach. Front2Back[™] uses the exponential power of cloud and cognitive to provide hyper-personalized (C = X2C[™]₂ = 1) digital experience to clients and their end customers. Mphasis' Service Transformation approach helps 'shrink the core' through the application of digital technologies across legacy environments within an enterprise, enabling businesses to stay ahead in a changing world. Mphasis' core reference architectures and tools, speed and innovation with domain expertise and specialization are key to building strong relationships with marquee clients. To know more, please visit <u>www.mphasis.com</u>

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