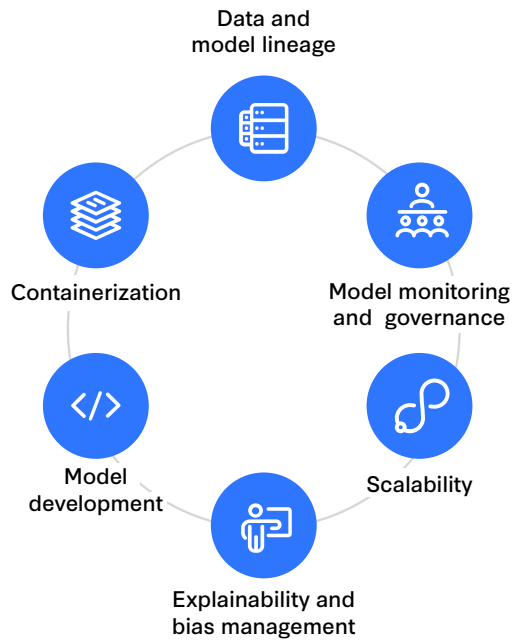# Generating business value with AI

Using production first approach with MLOps

In the age of Rapid adoption of AI/ML across the board, the inability to scale and speed the deployments will stifle innovation and customer experience excellence. The complexity of deploying ML solutions in an enterprise and significant computation and storage costs call for a proven strategy and approach to solve this problem.

Virtusa MLOps accelerator offers multiple options on the Google Cloud platform (e.g Kubeflow based, Vertex AI based) that drives scaling of AI/ML Solutions and improved deployment velocity. This helps enterprises significantly improve their ROI on AI/ML investments and enhance customer experience and Business Value.

Data and
model lineage

Model monitoring
and governance

Scalability

Explainability and
bias management

Model
development

Containerization

- **Fast-track model development** with support for almost every aspect of model development - from data wrangling to model training and validation

- **Reproduce/traceback model results** through our data versioning and model versioning using metadata

- **Deploy onto any target environment** (Kubernetes, AWS/Azure/Google VMs) – platform agnostic and highly scalable

- **Monitor for model accuracy, error metrics, and data drift** through our inbuilt dashboards

- **Auto-retrain models** seamlessly from the accelerator based on data drift or model drift

- **Prevent bias** through our model agnostic explainability methods

- **Supports integration** for multi-type data ingestion and custom model support

| Support for multi Cloud platforms | Support for batch and real-time data ingestion | Support for multi pipelines |

Why clients are choosing Virtusa

Clients choose Virtusa for their AI/ML initiatives because of its proven Production First approach with MLOps accelerators and frameworks, which effectively streamline and automate these initiatives. By utilizing these tools, we have achieved the following:

We have reduced the development time for enterprises by up to 40%, which allows them to bring their solutions to market faster.

Our MLOps practice has helped enterprises scale their AI/ML solutions, significantly reducing deployment time by up to 40%

A comprehensive approach encompassing Continuous Integration (CI), Continuous Delivery (CD), Continuous Training, model monitoring, and explainability ensures that ML-based solutions are repeatable, reliable, and reproducible for enterprises.

Capabilities

Repeatable and reliable ML-based solutions through standardized processes

Faster go-to-market through end-to-end automated data and ML pipelines

AI-based transparent decision-making, through explainable AI

Support for model parallel pipelines

Data scientist-enabled to focus on ML models with MLOps taking care of the dependencies and tracking

Tech debt elimination through automated data and model versioning

End-to-End MLOps pipeline management using Vertex AI and Kubeflow for any domain use case. Fully scalable MLOps using Kubeflow option.

Case studies

Virtusa helps a leading fintech company to scale its AI/ML solutions leveraging MLOps practices

Virtusa helps a leading bank with reusability and productionization of NLP summarization solution using MLOps framework - reusability increased by 40% and deployment time reduced by 45%

Partners

vertex.ai   Azure Machine Learning   Kubeflow   dataiku   databricks   mlflow

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