# pactera EDGE Why MLOps is Critical to the Future of Your Business?

In this era of industrialization and democratization of Artificial Intelligence (AI), data is the fuel that's enabling digital transformations and accelerate the delivery of business outcomes. Therefore, Organizations are scrambling to embed AI across multiple use cases to improve productivity, increase revenue, and optimize OPEX. However, we see Enterprises struggle to successfully scale AI enterprise-wide due to limited availability of skilled AI talent, shortage of data, risks associated with AI adoption, and lack of IT infrastructure to scale deployments.

#### **MLOps to the Relief**

To overcome the challenges enterprises face in their ML journey they need to expedite the development & deployment of models. An emerging ideal solution is MLOps – an intersection of ML and IT operations based on the concept of DevOps.

#### **Pactera EDGE Solution**

Pactera EDGE expedites the development & deployment of an MLOps platform using our frameworks and accelerators, resulting in improved productivity, reduction in TCO and OPEX, improvements in productivity and operational efficiencies.

Our IP, best practices and methodologies, are infused in the development of the MLOps platform with the right calibration of processes, tools & skill-sets, accelerating your MLOps Journey resulting in optimized spending.

Solutions Framework:

- MORE VALUE, FASTER. By transforming a highly manual process (with standardized, infrastructure automation and templatized workflows), teams simply take new training data, transition them into Azure storage, and run the pipeline to retrain and redeploy.
- LOWER COSTS, BETTER ABILITY
   TO INNOVATE. Standardized infrastructure
   minimizes overallocation and waste.
   Developers, are liberated from having to build
   and deploy each model by hand and
   empowered to focus on solving new business
   problems.
- IMPROVED RELIABILITY AND RISK
   MITIGATION. More automation means less
   human error. Infrastructure-as-code,
   templatized workflows, version control, and
   code centralization all reduce the risk of errors
   that impact availability, security, and
   performance.
- MINIMIZED TECHNICAL DEBT. Centralized monitoring and alerting, combined with highly visible lineage for each model, drastically reduced technical debt and increased the quality of the solutions in production over time.

| Λ٦ | Γ /        | ١ ،        |   | LA  | N  | ┌. |
|----|------------|------------|---|-----|----|----|
| ΗI | - <i>F</i> | <b>1</b> - | U | L/H | ıΝ | L. |

**Customer:** 

**Customer Size:** 

Country:

Industry:

**Products and Services:** Microsoft Azure



## Solution:

# Key Tenants of MLOps

- Data collection and preparation. Data catalog, Data refresh and synchronization
- Model training and validation. Workflow model, Feature engineering and Feature store
- Model deployment. Multi-model deployment, Autoscaling & load balancing and Ability to deploy models on any infrastructure
- Model monitoring. Model retraining and testing, versioning and rollback capabilities, Performance drift analysis
- Data Quality. Outliers, Duplicates and Noisy Data
- Data Relevance. Seasonal Influences, Injected Bias, Data keeps changing over time

# How We Can Help?

- We employ our best Practices for recognizing data drift, mitigating adversarial attacks
- We recommend the best practice for Canary Testing that mitigate risks and improves the accuracy of models before serving them in production
- Model Staleness Test. We do A/B experiments to predict the Quality curve on the frequency of training the model
- We recognize signals to observe ML Model Performance and notify stakeholders when to retrain
- We provide mediums for auditing, compliance with regulations

## **Customer Benefits**

Operational Savings

Faster time to market

Improved Productivity

Improved interoperability & transparency of ML Models

Increased quality & accuracy of predictions

Minimized risk and ensure regulatory compliance

### **LEARN MORE**

Pactera Edge

www.pacteraedge.com

scott.scholz@pacteraedge.com