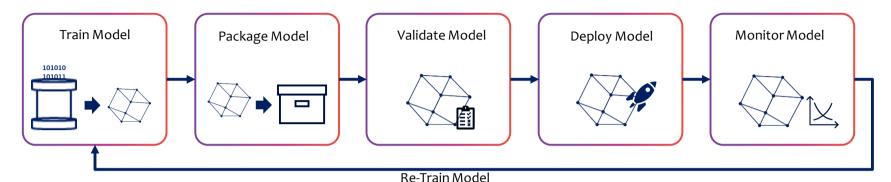


TCS MLOps

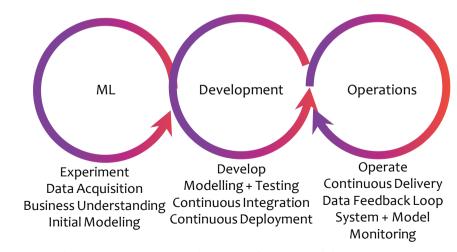
Microsoft Business Unit – Data & Al
Powered by Azure



MLOps Life Cycle



- Develop & train model with reusable ML pipelines
- Package model using containers to capture runtime dependencies for inference
- Validate model behavior functionally, in terms of responsiveness, in terms of regulatory compliance
- **Deploy model** to cloud & edge, for use in realtime/streaming/batch processing
- Monitor model behavior & business value, know when to replace/deprecate a stale model





TCS Consulting service led Enablers and accelerators at each stage improving Productivity of AIML models

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MLOps Flow across Enterprise

Persona











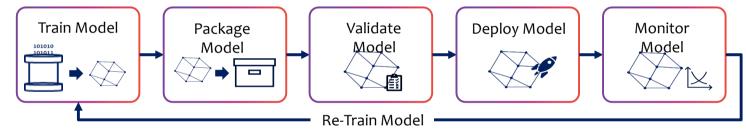




Input

- Business Context
- DS Experience
- Data
- Pretrained Model
- Model
- Training Dataset
- Dependencies
- Inferencing Platform
- Testing plan Unit, Functional and Perf.
- Testing Data
- Packaged Model
- Go Decision
- Packaged Model
- Selected Inferencing target

 Model in Production environment



Output / Assets

Needs

- Training Dataset
- Model

- Container Image
- Deployable Model **Package**

3

- Packaged Model
- Inferencing target

• Go – No Go Decision

Inferences

 Model performance information

- reproducibility
 - Storage of Model and its Dataset

Source Control for

- Model Versioning
- Access Control

- Container packaging service
- Packaging for interoperability across varied tech stack
- Continuous Testing
- Model Interpretability
- A/B testing against previous Versions
- Quick and Easy Deployment
- Easy consumption with minimal config
- Auditability

- Identify Need for Retraining
- Trigger Retraining

Building on belief ion



Thank You