



A Women Owned/Women Led Company

Spyglass Presents: MLOps Envisioning



Infrastructure Azure
Data & AI Azure
Digital & App Innovation Azure
Modern Work
Security

What Is MLOps?

Traditional DevOps

Code



Config Management



CI (Continuous Integration) /
CD (Continuous Delivery)

Application

Task	Design A (current)		Design B (future)	
	Global Bank 1 User	Global Bank 2 User	Global Bank 1 User	Global Bank 2 User
Understands which requests are sent	🔴	🔴	🟢	🟡
Understands which requests are new	🔴	🔴	🟢	🟢
Understands which requests are in progress	🔴	🔴	🟢	🟢
Understands which requests are complete	🔴	🔴	🟢	🟢
Understands which requests are rejected / declined	🟢	🟢	🔴	🔴
Understands which requests are returned	🔴	🔴	🔴	🔴
Understands which requests are fulfilled	🔴	🔴	🟢	🟢
Understands how to return an incorrect document	🔴	🔴	🟢	🟢
Understands when document has been returned	🔴	🔴	🟢	🟢
Understands items remaining category	Future Only	Future Only	🟢	🟢

MLOps

Code

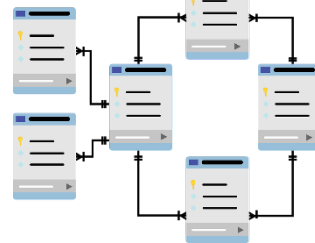


Config Management



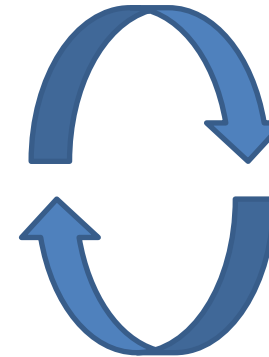
CI

Data

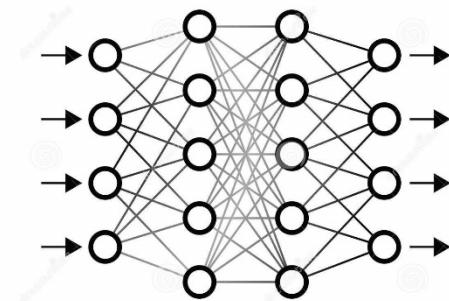


CT (Continuous Training)

/ CD



Model



The Problem

Data scientists are experts in building machine learning and statistical models to solve challenging business problems.

However, many organizations **struggle operationalizing models to production** where they can truly **generate business value**.

Common **barriers to unlocking the ROI** of your models:

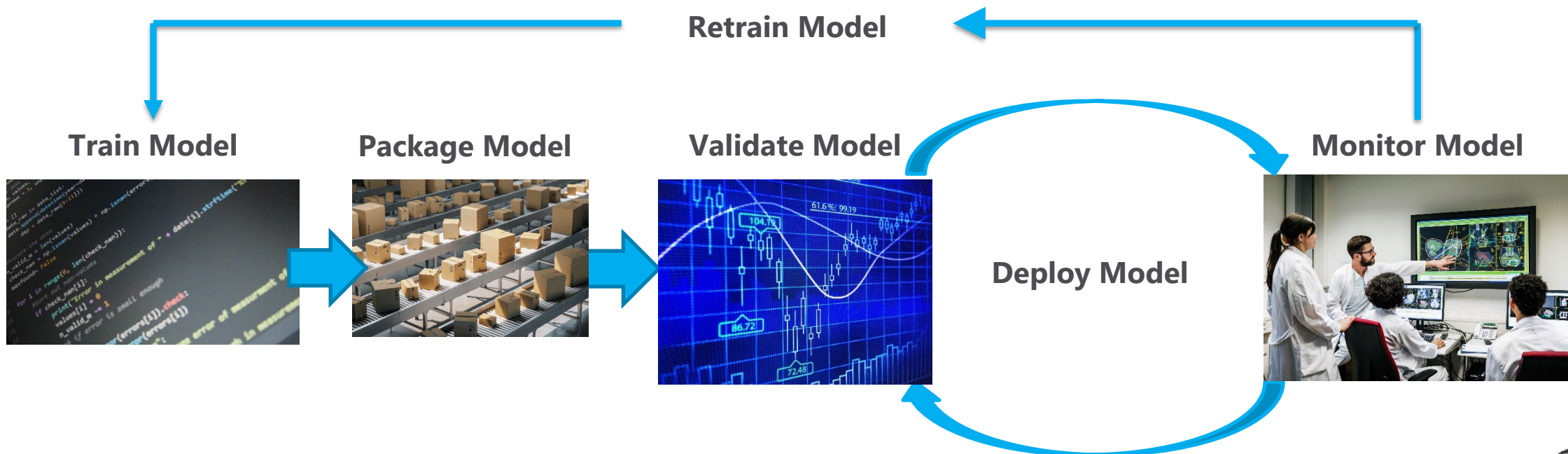
- Lacking access to DevOps skillsets
- Lack of experience with production-level machine learning
- No model, data, and infrastructure monitoring
- Uncertainty about the best tools and approaches to use
- Lack of unified deployment methodology increases time to value



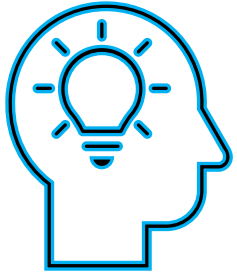
The solution is MLOps!

Machine Learning Operations (MLOps), or DevOps for machine learning—is the intersection of people, process, and platform for gaining business value from machine learning.

It **streamlines development and deployment** of your **analytical models** via **monitoring, validation, and governance** of those models.



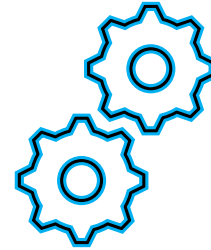
Why Spyglass for MLOps?



Fill the talent gap to get models to production efficiently, securely, and safely



Deep Microsoft Azure and DevOps expertise reduce the time to ROI for your data science investment



Automated retraining, monitoring and alerting minimize the risk of your models underperforming



Security and Responsible AI come as standard

Spyglass MLOps Envisioning Approach

1. Discovery and workshops

- Identify the who, what, when, and why behind your MLOps needs
- Envision how a robust MLOps strategy will help your organization
- Run workshops with business units, data science teams and IT to develop a strategy that meets everyone's needs
- Analyze existing customer data estate, infrastructure, applications, workloads, and ML scenarios to understand migration requirements

2. Design: Create Architectures and Strategy

- Design Azure architecture to support MLOps strategy using well-architected framework
- Design for security, compliance, and monitoring needs
- Ensure platform is both scalable and cost-effective based on customer's future vision
- DevOps, ML and Platform architects form an integrated design team

3. Document and Deliver: Create Architectures and Strategy

- Build migration plan and MLOps roadmap
- Present to all stakeholders, and develop consensus





Spyglass MLOps Envisioning Toolkit

- Solution Design Template
- Planning and Delivery Checklists
- Documented Development Practices
- Documented Architecture Design Patterns
- Cost Assessment and Planning Tools
- Security and Compliance Checklists
- Defined Workshop Methodology
- Educational materials and demos
- Experienced Architects

Spyglass MLOps Benefits

- Spyglass MLOps provides the following benefits:
 - **Reduce Time To ROI**– ML models get to production 2-5 times faster
 - **Reduce Risk** – Monitoring and alerting make you responsive to model drift and avoid silent failures
 - **More innovation**– Free up your data science team to focus on new models and algorithms, instead of maintaining existing ones
 - **Experience** – Our experienced ML team takes the guess work out of your strategy, helping you avoid common pitfalls



Next Steps



Scoping Session to understand client's ML landscape



Process paperwork



Start designing platform and strategy!



Thank You